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Formation of a Summation Formula in Connection with Hypergeometric and Gamma Function

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Formation of a Summation Formula in Connection with Hypergeometric and Gamma Function

Salahuddin [α] & Intazar Husain [σ]

Abstract - The main objective of the present paper is to establish a summation formula in connection with Hypergeometric and Gamma function.

Keywords and Phrases : contiguous relation, gauss second summation theorem, recurrence relation .

I. Introduction

Generalized Gaussian Hypergeometric function of one variable is defined by

$$ {}_AF_B\left[\begin{array}{ll} a_1, a_2, \cdots, a_A & ; \\ & \\ b_1, b_2, \cdots, b_B & ; \end{array} z\right] = \sum_{k=0}^{\infty} \frac{(a_1)_k (a_2)_k \cdots (a_A)_k z^k}{(b_1)_k (b_2)_k \cdots (b_B)_k k!} $$

or

$$ {}_AF_B\left[\begin{array}{ll} (a_A) & ; \\ & \\ (b_B) & ; \end{array} z\right] \equiv {}_AF_B\left[\begin{array}{ll} (a_j)_{j=1}^{A} & ; \\ & \\ (b_j)_{j=1}^{B} & ; \end{array} z\right] = \sum_{k=0}^{\infty} \frac{((a_A))_k z^k}{((b_B))_k k!} \tag{1} $$

where the parameters $b_1, b_2, \cdots, b_B$ are neither zero nor negative integers and $A,\ B$ are non-negative integers and $\mid z \mid = 1$.

Contiguous Relation is defined by

[Andrews p.363(9.16)]

$$ (a-b)\ {}_2F_1\left[\begin{array}{ll} a,\ b\ ; \\ c\ ; \end{array} z\right] = a\ {}_2F_1\left[\begin{array}{ll} a+1,\ b\ ; \\ c\ ; \end{array} z\right] - b\ {}_2F_1\left[\begin{array}{ll} a,\ b+1\ ; \\ c\ ; \end{array} z\right] \tag{2} $$

Gauss second summation theorem is defined by [Prudnikov, 491(7.3.7.8)]

$$ {}_2F_1\left[\begin{array}{ll} a,\ b\ ; \\ \frac{a+b+1}{2}\ ; \end{array} \frac{1}{2}\right] = \frac{\Gamma(\frac{a+b+1}{2})\ \Gamma(\frac{1}{2})}{\Gamma(\frac{a+1}{2})\ \Gamma(\frac{b+1}{2})} \tag{3} $$

$$ = \frac{2^{(b-1)}\ \Gamma(\frac{b}{2})\ \Gamma(\frac{a+b+1}{2})}{\Gamma(b)\ \Gamma(\frac{a+1}{2})} \tag{4} $$

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Recurrence relation is defined by

$$\Gamma(z+1) = z\,\Gamma(z) \tag{5}$$

II. Main Summation Formula

$$ {}_2F_1\left[\begin{array}{c} a,\ \ b\ \ ; \\ \frac{a+b+38}{2}\ ; \end{array}\ \ \frac{1}{2}\right] = \frac{2^b\ \Gamma(\frac{a+b+38}{2})}{(a-b)\ \Gamma(b)}\times$$

$$\times\left[\frac{\Gamma(\frac{b}{2})}{\Gamma(\frac{a}{2})}\left\{\frac{262144(-466206625753989120000a+80177108784198451200a^2-5969026890546020352 0a^3)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+\right.\right.$$

$$+\frac{262144(259410161783191633 92a^4-744898482867496550 4a^5+151147581126403686 4a^6)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(-225747898745241600a^7+25468769585086464a^8-2205749914587648a^9)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(147948773077248a^{10}-7705944829440a^{11}+310606256896a^{12}-9588825792a^{13})}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(222345312a^{14}-3745440a^{15}+43248a^{16}-306a^{17}+a^{18}+4662066257539891200 0b)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(227646051134629478400ab-845615187148721356 80a^2b+204544425045918744576a^3b)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(-414766676276709949 44a^4b+229435681205960048 64a^5b-267096952202895360 0a^6b)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(653655295920635904a^7b-4636764395107891 2a^8b+6087033574989312a^9b)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(-267452777940480a^{10}b+20310289142784a^{11}b-538587975744a^{12}b+23985898944a^{13}b)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

$$+\frac{262144(-350382240a^{14}b+8727936a^{15}b-53550a^{16}b+630a^{17}b+80177108784198451200b^2)}{\left[\prod_{\delta=0}^{17}\{a-b-2\delta\}\right]\left[\prod_{\eta=1}^{18}\{a-b+2\eta\}\right]}+$$

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$$+\frac{262144(845615187148721356 80ab^2+376765373892274421760a^2b^2-37106107946844291072a^3b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(946619218456657920 00a^4b^2-825005824582754304 0a^5b^2+48344849374239129 60a^6b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-286088788492683264a^7b^2+7348803708673152 0a^8b^2-2830362252157440a^9b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(385171067635200a^{10}b^2-9214702632576a^{11}b^2+714494944800a^{12}b^2-9600101280a^{13}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(427616640a^{14}b^2-2450448a^{15}b^2+58905a^{16}b^2+5969026890546020352 0b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(204544425045918744576ab^3+37106107946844291072a^2b^3+14815233917029161369 6a^3b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-595460874960838656 0a^4b^3+147984352737855406 08a^5b^3-655755966671984640a^6b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(380668112993642496a^7b^3-12411632232552960a^8b^3+3161240677647360a^9b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-67636609729920a^{10}b^3+9071028833664a^{11}b^3-112495612320a^{12}b^3+8492373120a^{13}b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-45912240a^{14}b^3+1947792a^{15}b^3+2594101617831916339 2b^4+4147666762767099494 4ab^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(946619218456657920 00a^2b^4+595460874960838656 0a^3b^4+212484050579172556 80a^4b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-417333234097511424a^5b^4+979202192033640960a^6b^4-2367455490436608 0a^7b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(131900802347635 20a^8b^4-239192223842880a^9b^4+58647685995360a^{10}b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{262144(-654569667360a^{11}b^4+84112741440a^{12}b^4-423644760a^{13}b^4+30260340a^{14}b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(744898482867496550 4b^5+22943568120596004864ab^5+8250058245827543040a^2b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(1479843527378554060 8a^3b^5+417333234097511424a^4b^5+133340740058637619 2a^5b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-13876520995814400a^6b^5+3029492613605990 4a^7b^5-403001238644928a^8b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(211792515536448a^9b^5-1997908688160a^{10}b^5+463267099008a^{11}b^5-2102818536a^{12}b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(254186856a^{13}b^5+1511475811264036864b^6+267096952202895360 0ab^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(4834484937423912960a^2b^6+65575596667198464 0a^3b^6+979202192033640960a^4b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(13876520995814400a^5b^6+39814926411617280a^6b^6-223040891969280a^7b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(449675387995680a^8b^6-3081641824800a^9b^6+1511564503680a^{10}b^6-5776974000a^{11}b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(1251677700a^12b^6+225747898745241600b^7+6536552959206359 04ab^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(286088788492683264a^2b^7+380668112993642496a^3b^7+23674554904366080a^4b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(30294926136059904a^5b^7+223040891969280a^6b^7+576376172064000a^7b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(-1635980781600a^8b^7+3032869276800a^9b^7-8351853840a^{10}b^7+3796297200a^{11}b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{262144(25468769585086464b^8+46367643951078912ab^8+73488037086731520a^2b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(12411632232552960a^3b^8+13190080234763520a^4b^8+403001238644928a^5b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(449675387995680a^6b^8+1635980781600a^7b^8+3817288490400a^8b^8-4298748300a^9b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(7307872110a^{10}b^8+2205749914587648b^9+6087033574989312ab^9+2830362252157440a^2b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(3161240677647360a^3b^9+239192223842880a^4b^9+21179251553644 8a^5b^9+3081641824800a^6b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(3032869276800a^7b^9+4298748300a^8b^9+9075135300a^9b^9+14794877307724 8b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(267452777940480ab^{10}+385171067635200a^2b^{10}+67636609729920a^3b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(58647685995360a^4b^{10}+1997908688160a^5b^{10}+1511564503680a^6b^{10}+8351853840a^7b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(7307872110a^8b^{10}+7705944829440b^{11}+20310289142784ab^{11}+9214702632576a^2b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(9071028833664a^3b^{11}+654569667360a^4b^{11}+463267099008a^5b^{11}+5776974000a^6b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(3796297200a^7b^{11}+310606256896b^{12}+538587975744ab^{12}+714494944800a^2b^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(112495612320a^3b^{12}+84112741440a^4b^{12}+2102818536a^5b^{12}+1251677700a^6b^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(9588825792b^{13}+23985898944ab^{13}+9600101280a^2b^{13}+8492373120a^3b^{13}+423644760a^4b^{13})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{262144(254186856a^5b^{13}+222345312b^{14}+350382240ab^{14}+427616640a^2b^{14}+45912240a^3b^{14})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(30260340a^4b^{14}+3745440b^{15}+8727936ab^{15}+2450448a^2b^{15}+1947792a^3b^{15}+43248b^{16})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{262144(53550ab^{16}+58905a^2b^{16}+306b^{17}+630ab^{17}+b^{18})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576b(48500033587878297600a+1132802109440262144 0a^2+211400110053670256 64a^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(279502310606792294 4a^4+157402554879187353 6a^5+128758187796725760a^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(3317576600673484 8a^7+1737630410723328a^8+240371614509312a^9+8050302965760a^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(638746221312a^{11}+13154598912a^{12}+603267168a^{13}+6887040a^{14}+172176a^{15}+816a^{16})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(9a^{17}+48500033587878297600b+835770210372267540 48a^2b+803408536626895257 6a^3b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(1310576673895618 9696a^4b+9182533859619635 20a^5b+4832233583493693 44a^6b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(2302049131620761 6a^7b+5654596258046208a^8b+177925617745920a^9b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(2354356253004 8a^{10}b+465775063040a^{11}b+35113632736a^{12}b+392680960a^{13}b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(16797360a^{14}b+79968a^{15}b+1785a^{16}b-1132802109440262144 0b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(8357702103722675404 8ab^2+3361849155291984691 2a^3b^2+161058057768796160 0a^4b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576b(2326378986350354432a^5b^2+92960637851361280a^6b^2+45218555603989504a^7b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(1285000248576000a^8b^2+296035410612480a^9b^2+5498064732160a^{10}b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(683281861696a^{11}b^2+7361244800a^{12}b^2+516583760a^{13}b^2+2423520a^{14}b^2+94248a^{15}b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(211400110053670256 64b^3-8034085366268952576ab^3+3361849155291984 6912a^2b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(489128359071199232 0a^4b^3+12838763728041574 4a^5b^3+165510896176890880a^6b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(3878969853214720a^7b^3+1734099087578880a^8b^3+28871685427200a^9b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(6174643478080a^{10}b^3+622915686 40a^{11}b^3+7178203760a^{12}b^3+32463200a^{13}b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(2086920a^{14}b^3-279502310606792 2944b^4+131057667389561 89696ab^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-161058057768796 1600a^2b^4+489128359071199 2320a^3b^4+309949836535381504a^5b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(4639359573094400a^6b^4+5366111189204480a^7b^4+72693320663040a^8b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(297624233121 60a^9b^4+267366915200a^{10}b^4+52694561360a^{11}b^4+222520480a^{12}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(23535820a^{13}b^4+157402554879187 3536b^5-9182533859619635 20ab^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(2326378986350354432a^2b^5-12838763728041574 4a^3b^5+309949836535381504a^4b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576b(9319447558181376a^6b^5+78989552345088a^7b^5+82270476664992a^8b^5+594896924160a^9b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(222498227952a^{10}b^5+831884256a^{11}b^5+150201324a^{12}b^5-128758187796725760b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(483223358349369344ab^6-92960637851361280a^2b^6+16551089617689088 0a^3b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-4639359573094400a^4b^6+9319447558181376a^5b^6+135601809678720a^7b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(604067587200a^8b^6+567933181200a^9b^6+1694579040a^{10}b^6+577697400a^{11}b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(331757660067348 48b^7-23020491316207616ab^7+45218555603989504a^2b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-3878969853214720a^3b^7+5366111189204480a^4b^7-78989552345088a^5b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(135601809678720a^6b^7+901508929200a^8b^7+1637618400a^9b^7+1391975640a^{10}b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-1737630410723328b^8+5654596258046208ab^8-1285000248576000a^2b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(1734099087578880a^3b^8-72693320663040a^4b^8+82270476664992a^5b^8-604067587200a^6b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(901508929200a^7b^8+2149374150a^9b^8+240371614509312b^9-177925617745920ab^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(296035410612480a^2b^9-28871685427200a^3b^9+29762423312160a^4b^9-594896924160a^5b^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(567933181200a^6b^9-1637618400a^7b^9+2149374150a^8b^9-80503029657 60b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576b(23543562530048ab^{10}-5498064732160a^2b^{10}+6174643478080a^3b^{10}-267366915200a^4b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(222498227952a^5b^{10}-1694579040a^6b^{10}+1391975640a^7b^{10}+6387462213 12b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-465775063040ab^{11}+683281861696a^2b^{11}-62291568640a^3b^{11}+52694561360a^4b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-831884256a^5b^{11}+577697400a^6b^{11}-13154598912b^{12}+35113632736ab^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-7361244800a^2b^{12}+7178203760a^3b^{12}-222520480a^4b^{12}+150201324a^5b^{12}+603267168b^{13})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-392680960ab^{13}+516583760a^2b^{13}-32463200a^3b^{13}+23535820a^4b^{13}-6887040b^{14})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(16797360ab^{14}-2423520a^2b^{14}+2086920a^3b^{14}+172176b^{15}-79968ab^{15}+94248a^2b^{15})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576b(-816b^{16}+1785ab^{16}+9b^{17})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}\Big\}-$$

$$-\frac{\Gamma(\frac{b+1}{2})}{\Gamma(\frac{a+1}{2})}\Big\{\frac{1048576a(48500033587878297600a-1132802109440262144 0a^2+2114001100536702566 4a^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-279502310606792294 4a^4+1574025548791873536a^5-128758187796725760a^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(331757660067348 48a^7-1737630410723328a^8+240371614509312a^9-8050302965760a^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(638746221312a^{11}-13154598912a^{12}+603267168a^{13}-6887040a^{14}+172176a^{15}-816a^{16})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(9a^{17}+48500033587878297600b+8357702103722675404 8a^2b-8034085366268952576a^3b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576a(1310576673895618 9696a^4b-91825338596196 3520a^5b+48322335834936 9344a^6b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-2302049131620761 6a^7b+565459625804620 8a^8b-17792561774592 0a^9b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(2354356253004 8a^{10}b-46577506304 0a^{11}b+3511363273 6a^{12}b-39268096 0a^{13}b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(1679736 0a^{14}b-7996 8a^{15}b+178 5a^{16}b+1132802109440262144 0b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(8357702103722675 4048ab^2+3361849155291984 6912a^3b^2-1610580577687961 600a^4b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(2326378986350354 432a^5b^2-9296063785136128 0a^6b^2+4521855560398950 4a^7b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-1285000248576000a^8b^2+296035410612480a^9b^2-5498064732160a^{10}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(683281861696a^{11}b^2-7361244800a^{12}b^2+516583760a^{13}b^2-2423520a^{14}b^2+94248a^{15}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(2114001100536702566 4b^3+8034085366268952576ab^3+3361849155291984 6912a^2b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(4891283590711992320a^4b^3-12838763728041574 4a^5b^3+1655108961768908 80a^6b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-3878969853214720a^7b^3+1734099087578880a^8b^3-28871685427200a^9b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(6174643478080a^{10}b^3-62291568640a^{11}b^3+7178203760a^{12}b^3-32463200a^{13}b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(2086920a^{14}b^3+279502310606792294 4b^4+1310576673895618 9696ab^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576a(161058057768796160 0a^2b^4+489128359071199232 0a^3b^4+309949836535381504a^5b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-46393595730944 00a^6b^4+5366111189204480a^7b^4-72693320663040a^8b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(29762423312160a^9b^4-267366915200a^{10}b^4+52694561360a^{11}b^4-222520480a^{12}b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(23535820a^13b^4+1574025548791873536b^5+918253385961963520ab^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(2326378986350354432a^2b^5+128387637280415744a^3b^5+309949836535381504a^4b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(9319447558181376a^6b^5-78989552345088a^7b^5+82270476664992a^8b^5-594896924160a^9b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(222498227952a^{10}b^5-831884256a^{11}b^5+150201324a^{12}b^5+1287581877967257 60b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(4832233583493693 44ab^6+92960637851361280a^2b^6+165510896176890880a^3b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(463935957309440 0a^4b^6+9319447558181376a^5b^6+135601809678720a^7b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(-604067587200a^8b^6+567933181200a^9b^6-1694579040a^{10}b^6+577697400a^{11}b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(331757660067348 48b^7+23020491316207616ab^7+45218555603989504a^2b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(3878969853214720a^3b^7+5366111189204480a^4b^7+78989552345088a^5b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(135601809678720a^6b^7+901508929200a^8b^7-1637618400a^9b^7+1391975640a^{10}b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576a(1737630410723328b^8+5654596258046208ab^8+1285000248576000a^2b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(1734099087578880a^3b^8+72693320663040a^4b^8+8227047666499 2a^5b^8+604067587200a^6b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(901508929200a^7b^8+2149374150a^9b^8+240371614509312b^9+177925617745920ab^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(296035410612480a^2b^9+28871685427200a^3b^9+29762423312160a^4b^9+594896924160a^5b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(567933181200a^6b^9+1637618400a^7b^9+2149374150a^8b^9+8050302965760b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(23543562530048ab^{10}+5498064732160a^2b^{10}+6174643478080a^3b^{10}+267366915200a^4b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(222498227952a^5b^{10}+1694579040a^6b^{10}+1391975640a^7b^{10}+638746221312b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(465775063040ab^{11}+683281861696a^2b^{11}+62291568640a^3b^{11}+52694561360a^4b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(831884256a^5b^{11}+577697400a^6b^{11}+13154598912b^{12}+35113632736ab^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(7361244800a^2b^{12}+7178203760a^3b^{12}+222520480a^4b^{12}+150201324a^5b^{12}+603267168b^{13})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(392680960ab^{13}+516583760a^2b^{13}+32463200a^3b^{13}+23535820a^4b^{13}+6887040b^{14})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(16797360ab^{14}+2423520a^2b^{14}+2086920a^3b^{14}+172176b^{15}+79968ab^{15}+94248a^2b^{15})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576a(816b^{16}+1785ab^{16}+9b^{17})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{262144(46620662575398912000a+80177108784198451200a^2+59690268905460203520a^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(25941016178319163392a^4+744898428674965504a^5+15114758112640368 64a^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(225747898745241600a^7+25468769585086464a^8+2205749914587648a^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(147948773077248a^{10}+7705944829440a^{11}+310606256896a^{12}+9588825792a^{13})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(222345312a^{14}+3745440a^{15}+43248a^{16}+306a^{17}+a^{18}-46620662575398912000b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(22764605113462947840 0ab+845615187148721356 80a^2b+204544425045918744576a^3b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(41476667627670994944a^4b+2294356812059600 4864a^5b+267096952202895360 0a^6b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(653655295920635904a^7b+4636764395107891 2a^8b+6087033574989312a^9b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(267452777940480a^{10}b+20310289142784a^{11}b+538587975744a^{12}b+23985898944a^{13}b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(350382240a^{14}b+8727936a^{15}b+53550a^{16}b+630a^{17}b+80177108784198451200b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-84561518714872135680ab^2+37676537389227442 1760a^2b^2+37106107946844291072a^3b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(946619218456657920 00a^4b^2+82500582458275430 40a^5b^2+48344849374239129 60a^6b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(286088788492683264a^7b^2+73488037086731520a^8b^2+2830362252157440a^9b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{262144(385171067635200a^{10}b^2+9214702632576a^{11}b^2+714494944800a^{12}b^2+9600101280a^{13}b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(427616640a^{14}b^2+2450448a^{15}b^2+58905a^{16}b^2-596902689054602035 20b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(2045444250459187445 76ab^3-3710610794684429107 2a^2b^3+1481523391702916136 96a^3b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(59546087496083865 60a^4b^3+1479843527378554060 8a^5b^3+655755966671984640a^6b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(3806681129936424 96a^7b^3+12411632232552960a^8b^3+3161240677647360a^9b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(67636609729920a^{10}b^3+9071028833664a^{11}b^3+112495612320a^{12}b^3+8492373120a^{13}b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(45912240a^{14}b^3+1947792a^{15}b^3+2594101617831916339 2b^4-4147666762767099494 4ab^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(9466192184566579200 0a^2b^4-595460874960838656 0a^3b^4+2124840505791725568 0a^4b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(4173332340975114 24a^5b^4+979202192033640960a^6b^4+23674554904366080a^7b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(1319008023476352 0a^8b^4+239192223842880a^9b^4+58647685995360a^{10}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(654569667360a^{11}b^4+84112741440a^{12}b^4+423644760a^{13}b^4+30260340a^{14}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-7448984828674965504b^5+2294356812059600 4864ab^5-8250058245827543040a^2b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(1479843527378554060 8a^3b^5-4173332340975114 24a^4b^5+1333407400586376192a^5b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{262144(13876520995814400a^6b^5+30294926136059904a^7b^5+403001238644928a^8b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(211792515536448a^9b^5+1997908688160a^{10}b^5+463267099008a^{11}b^5+2102818536a^{12}b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(254186856a^{13}b^5+151147581126403686 4b^6-2670969522028953600ab^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(4834484937423912960a^2b^6-65575596667198464 0a^3b^6+979202192033640960a^4b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-13876520995814400a^5b^6+39814926411617280a^6b^6+223040891969280a^7b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(449675387995680a^8b^6+3081641824800a^9b^6+1511564503680a^{10}b^6+5776974000a^{11}b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(1251677700a^{12}b^6-2257478987452416 00b^7+6536552959206359 04ab^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-286088788492683264a^2b^7+380668112993642496a^3b^7-23674554904366080a^4b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(30294926136059904a^5b^7-223040891969280a^6b^7+576376172064000a^7b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(1635980781600a^8b^7+3032869276800a^9b^7+8351853840a^{10}b^7+3796297200a^{11}b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(2546876958508646 4b^8-4636764395107891 2ab^8+7348803708673152 0a^2b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-12411632232552960a^3b^8+13190080234763520a^4b^8-403001238644928a^5b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(449675387995680a^6b^8-1635980781600a^7b^8+3817288490400a^8b^8+4298748300a^9b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{262144(7307872110a^{10}b^{8}-2205749914587648b^{9}+6087033574989312ab^{9}-2830362252157440a^{2}b^{9})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(3161240677647360a^{3}b^{9}-239192223842880a^{4}b^{9}+211792515536448a^{5}b^{9}-3081641824800a^{6}b^{9})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(3032869276800a^{7}b^{9}-4298748300a^{8}b^{9}+9075135300a^{9}b^{9}+1479487730772480b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-267452777940480ab^{10}+385171067635200a^{2}b^{10}-67636609729920a^{3}b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(58647685995360a^{4}b^{10}-1997908688160a^{5}b^{10}+1511564503680a^{6}b^{10}-8351853840a^{7}b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(7307872110a^{8}b^{10}-7705944829440b^{11}+20310289142784ab^{11}-9214702632576a^{2}b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(9071028833664a^{3}b^{11}-654569667360a^{4}b^{11}+463267099008a^{5}b^{11}-5776974000a^{6}b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(3796297200a^{7}b^{11}+310606256896b^{12}-538587975744ab^{12}+714494944800a^{2}b^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-112495612320a^{3}b^{12}+84112741440a^{4}b^{12}-2102818536a^{5}b^{12}+1251677700a^{6}b^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-9588825792b^{13}+23985898944ab^{13}-9600101280a^{2}b^{13}+8492373120a^{3}b^{13}-423644760a^{4}b^{13})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(254186856a^{5}b^{13}+222345312b^{14}-350382240ab^{14}+427616640a^{2}b^{14}-45912240a^{3}b^{14})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(30260340a^{4}b^{14}-3745440b^{15}+8727936ab^{15}-2450448a^{2}b^{15}+1947792a^{3}b^{15}+43248b^{16})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{262144(-53550ab^{16}+58905a^{2}b^{16}-306b^{17}+630ab^{17}+b^{18})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}\Big\}\Big] \tag{6}$$

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III. Derivation of the Summation Formula

Replacing c with $\frac{a+b+38}{2}$ and z with $\frac{1}{2}$ in equation (2), and involving derived from reference(6), we get

$$L.H.S = a\ \frac{2^b\ \Gamma(\frac{a+b+38}{2})}{\Gamma(b)}\left[\frac{\Gamma(\frac{b}{2})}{\Gamma(\frac{a+2}{2})}\left\{\frac{131072(-46620662575398912000a+80177108784198451200a^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+\right.\right.$$

$$+\frac{131072(-5969026890546020352 0a^3+2594101617831916339 2a^4-744898482867496550 4a^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(1511475811264036864a^6-225747898745241600a^7+25468769585086464a^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-2205749914587648a^9+147948773077248a^{10}-7705944829440a^{11}+310606256896a^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-9588825792a^{13}+222345312a^{14}-3745440a^{15}+43248a^{16}-306a^{17}+a^{18})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(46620662575398912000b+2276460511346294784 00ab-8456151871487213568 0a^2b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(2045444250459187445 76a^3b-4147666762767099494 4a^4b+2294356812059600486 4a^5b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-2670969522028953600a^6b+6536552959206359 04a^7b-463676439510789 12a^8b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(6087033574989312a^9b-267452777940480a^{10}b+20310289142784a^{11}b-538587975744a^{12}b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(23985898944a^{13}b-350382240a^{14}b+8727936a^{15}b-53550a^{16}b+630a^{17}b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(8017710878419845120 0b^2+8456151871487213568 0ab^2+3767653738922744217 60a^2b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{131072(-3710610794684429107 2a^3b^2+946619218456657920 00a^4b^2-8250058245827543040a^5b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(4834484937423912960a^6b^2-286088788492683264a^7b^2+73488037086731520a^8b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-2830362252157440a^9b^2+385171067635200a^{10}b^2-9214702632576a^{11}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(714494944800a^{12}b^2-9600101280a^{13}b^2+427616640a^{14}b^2-2450448a^{15}b^2+58905a^{16}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(5969026890546020352 0b^3+2045444250459187445 76ab^3+3710610794684429107 2a^2b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(1481523391702916136 96a^3b^3-595460874960838656 0a^4b^3+1479843527378554060 8a^5b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-6557559666719846 40a^6b^3+3806681129936424 96a^7b^3-12411632232552960a^8b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(3161240677647360a^9b^3-67636609729920a^{10}b^3+9071028833664a^{11}b^3-112495612320a^{12}b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(8492373120a^{13}b^3-45912240a^{14}b^3+1947792a^{15}b^3+2594101617831916339 2b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(4147666762767099494 4ab^4+946619218456657920 00a^2b^4+595460874960838656 0a^3b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(2124840505791725568 0a^4b^4-417333234097511424a^5b^4+9792021920336409 60a^6b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-2367455490436608 0a^7b^4+131900802347635 20a^8b^4-239192223842880a^9b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(5864768599536 0a^{10}b^4-654569667360a^{11}b^4+84112741440a^{12}b^4-423644760a^{13}b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{131072(30260340a^{14}b^4+744898428674965504b^5+2294356812059600486 4ab^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(825005824582754304 0a^2b^5+147984352737855406 08a^3b^5+417333234097511424a^4b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(133340740058637619 2a^5b^5-13876520995814400a^6b^5+30294926136059904a^7b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-403001238644928a^8b^5+211792515536448a^9b^5-1997908688160a^{10}b^5+463267099008a^{11}b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-2102818536a^{12}b^5+254186856a^{13}b^5+1511475811264036864b^6+2670969522028953600ab^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(483448493742391296 0a^2b^6+655755966671984640a^3b^6+979202192033640960a^4b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(13876520995814400a^5b^6+39814926411617280a^6b^6-223040891969280a^7b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(449675387995680a^8b^6-3081641824800a^9b^6+1511564503680a^{10}b^6-5776974000a^{11}b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(1251677700a^12b^6+225747898745241600b^7+6536552959206359 04ab^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(286088788492683264a^2b^7+380668112993642496a^3b^7+23674554904366080a^4b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(30294926136059904a^5b^7+223040891969280a^6b^7+576376172064000a^7b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(-1635980781600a^8b^7+3032869276800a^9b^7-8351853840a^{10}b^7+3796297200a^{11}b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(254687695850864 64b^8+46367643951078912ab^8+73488037086731520a^2b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{131072(12411632232552960a^3b^8+13190080234763520a^4b^8+403001238644928a^5b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(449675387995680a^6b^8+1635980781600a^7b^8+3817288490400a^8b^8-4298748300a^9b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(7307872110a^{10}b^8+2205749914587648b^9+6087033574989312ab^9+2830362252157440a^2b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(3161240677647360a^3b^9+239192223842880a^4b^9+211792515536448a^5b^9+3081641824800a^6b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(3032869276800a^7b^9+4298748300a^8b^9+9075135300a^9b^9+1479487730772 48b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(267452777940480ab^{10}+385171067635200a^2b^{10}+67636609729920a^3b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(58647685995360a^4b^{10}+1997908688160a^5b^{10}+1511564503680a^6b^{10}+8351853840a^7b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(7307872110a^8b^{10}+7705944829440b^{11}+20310289142784ab^{11}+9214702632576a^2b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(9071028833664a^3b^{11}+654569667360a^4b^{11}+463267099008a^5b^{11}+5776974000a^6b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(3796297200a^7b^{11}+310606256896b^{12}+538587975744ab^{12}+714494944800a^2b^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(112495612320a^3b^{12}+84112741440a^4b^{12}+2102818536a^5b^{12}+1251677700a^6b^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(9588825792b^{13}+23985898944ab^{13}+9600101280a^2b^{13}+8492373120a^3b^{13}+423644760a^4b^{13})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(254186856a^5b^{13}+222345312b^{14}+350382240ab^{14}+427616640a^2b^{14}+45912240a^3b^{14})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{131072(30260340a^4b^{14}+3745440b^{15}+8727936ab^{15}+2450448a^2b^{15}+1947792a^3b^{15}+43248b^{16})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{131072(53550ab^{16}+58905a^2b^{16}+306b^{17}+630ab^{17}+b^{18})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}\Big\}-$$

$$-\frac{\Gamma(\frac{b+1}{2})}{\Gamma(\frac{a+1}{2})}\Big\{\frac{1048576(48500033587878297600a-1132802109440262144 0a^2+2114001100536702566 4a^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}$$

$$+\frac{1048576(-279502310606792294 4a^4+157402554879187353 6a^5-128758187796725760a^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(33175766006734848a^7-1737630410723328a^8+240371614509312a^9-8050302965760a^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(638746221312a^{11}-13154598912a^{12}+603267168a^{13}-6887040a^{14}+172176a^{15}-816a^{16})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(9a^{17}+48500033587878297600b+835770210372267540 48a^2b-8034085366268952576a^3b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(13105766738956189696a^4b-9182533859619635 20a^5b+4832233583493693 44a^6b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(-23020491316207616a^7b+5654596258046208a^8b-177925617745920a^9b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(23543562530048a^{10}b-465775063040a^{11}b+35113632736a^{12}b-392680960a^{13}b)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(16797360a^{14}b-79968a^{15}b+1785a^{16}b+1132802109440262144 0b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(835770210372267540 48ab^2+336184915529198469 12a^3b^2-161058057768796160 0a^4b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(232637898635035443 2a^5b^2-92960637851361280a^6b^2+45218555603989504a^7b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576(-1285000248576000a^8b^2+296035410612480a^9b^2-5498064732160a^{10}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(683281861696a^{11}b^2-7361244800a^{12}b^2+516583760a^{13}b^2-2423520a^{14}b^2+94248a^{15}b^2)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(2114001100536702566 4b^3+8034085366268952576ab^3+3361849155291984691 2a^2b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(489128359071199232 0a^4b^3-128387637280415744a^5b^3+165510896176890880a^6b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(-3878969853214720a^7b^3+1734099087578880a^8b^3-28871685427200a^9b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(6174643478080a^{10}b^3-62291568640a^{11}b^3+7178203760a^{12}b^3-32463200a^{13}b^3)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(2086920a^{14}b^3+2795023106067922944b^4+1310576673895618969 6ab^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(1610580577687961600a^2b^4+489128359071199232 0a^3b^4+3099498365353815 04a^5b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(-4639359573094400a^6b^4+5366111189204480a^7b^4-72693320663040a^8b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(297624233121 60a^9b^4-267366915200a^{10}b^4+52694561360a^{11}b^4-222520480a^{12}b^4)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(23535820a^{13}b^4+1574025548791873536b^5+9182533859619635 20ab^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(2326378986350354432a^2b^5+128387637280415744a^3b^5+309949836535381504a^4b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(9319447558181376a^6b^5-78989552345088a^7b^5+82270476664992a^8b^5-594896924160a^9b^5)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576(222498227952a^{10}b^5-831884256a^{11}b^5+150201324a^{12}b^5+12875818779672576 0b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(483223358349369344ab^6+92960637851361280a^2b^6+16551089617689088 0a^3b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(4639359573094400a^4b^6+9319447558181376a^5b^6+135601809678720a^7b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(-604067587200a^8b^6+567933181200a^9b^6-1694579040a^{10}b^6+577697400a^{11}b^6)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(331757660067348 48b^7+23020491316207616ab^7+4521855603989504a^2b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(3878969853214720a^3b^7+5366111189204480a^4b^7+78989552345088a^5b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(135601809678720a^6b^7+901508929200a^8b^7-1637618400a^9b^7+1391975640a^{10}b^7)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(17376304107233 28b^8+5654596258046208ab^8+1285000248576000a^2b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(1734099087578880a^3b^8+72693320663040a^4b^8+82270476664992a^5b^8+604067587200a^6b^8)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(901508929200a^7b^8+2149374150a^9b^8+240371614509312b^9+177925617745920ab^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(296035410612480a^2b^9+28871685427200a^3b^9+29762423312160a^4b^9+594896924160a^5b^9)}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(567933181200a^6b^9+1637618400a^7b^9+2149374150a^8b^9+8050302965760b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(23543562530048ab^{10}+5498064732160a^2b^{10}+617464347808 0a^3b^{10}+267366915200a^4b^{10})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

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$$+\frac{1048576(222498227952a^5b^{10}+1694579040a^6b^{10}+1391975640a^7b^{10}+638746221312b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(465775063040ab^{11}+683281861696a^2b^{11}+62291568640a^3b^{11}+52694561360a^4b^{11})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(831884256a^5b^{11}+577697400a^6b^{11}+13154598912b^{12}+35113632736ab^{12}+7361244800a^2b^{12})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(7178203760a^3b^{12}+222520480a^4b^{12}+150201324a^5b^{12}+603267168b^{13}+392680960ab^{13})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(516583760a^2b^{13}+32463200a^3b^{13}+23535820a^4b^{13}+6887040b^{14}+16797360ab^{14})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(2423520a^2b^{14}+2086920a^3b^{14}+172176b^{15}+79968ab^{15}+94248a^2b^{15}+816b^{16})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}+$$

$$+\frac{1048576(1785ab^{16}+9b^{17})}{\Big[\prod_{\delta=0}^{17}\{a-b-2\delta\}\Big]\Big[\prod_{\eta=1}^{18}\{a-b+2\eta\}\Big]}\Bigg\}\Bigg]-$$

$$-\frac{2^{b+1}\,\Gamma(\frac{a+b+38}{2})}{\Gamma(b)}\Bigg[\frac{\Gamma(\frac{b+1}{2})}{\Gamma(\frac{a+1}{2})}\Bigg\{\frac{131072(46620662575398912000a+8017710878419845120 0a^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(5969026890546020352 0a^3+2594101617831916339 2a^4+7448984828674965504a^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(1511475811264036864a^6+225747898745241600a^7+25468769585086464a^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(2205749914587648a^9+14794877307724 8a^{10}+7705944829440a^{11}+310606256896a^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(9588825792a^{13}+222345312a^{14}+3745440a^{15}+43248a^{16}+306a^{17}+a^{18})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-46620662575398912000b+22764605113462947840 0ab+8456151871487213568 0a^2b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{131072(2045444250459187445 76a^3b+41476667627670994944a^4b+2294356812059600 4864a^5b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(2670969522028953600a^6b+653655295920635904a^7b+46367643951078912a^8b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(6087033574989312a^9b+267452777940480a^{10}b+20310289142784a^{11}b+538587975744a^{12}b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(23985898944a^{13}b+350382240a^{14}b+8727936a^{15}b+53550a^{16}b+630a^{17}b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(8017710878419845 1200b^2-845615187148721356 80ab^2+376765373892274421760a^2b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(3710610794684429 1072a^3b^2+946619218456657 92000a^4b^2+8250058245827543040a^5b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(4834484937423912960a^6b^2+286088788492683264a^7b^2+73488037086731520a^8b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(2830362252157440a^9b^2+385171067635200a^{10}b^2+9214702632576a^{11}b^2+714494944800a^{12}b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(9600101280a^{13}b^2+427616640a^{14}b^2+2450448a^{15}b^2+58905a^{16}b^2-5969026890546020352 0b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(2045444250459187445 76ab^3-3710610794684429 1072a^2b^3+148152339170291613696a^3b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(5954608749608386560a^4b^3+147984352737855406 08a^5b^3+655755966671984640a^6b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(3806681129936424 96a^7b^3+12411632232552960a^8b^3+3161240677647360a^9b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(67636609729920a^{10}b^3+9071028833664a^{11}b^3+112495612320a^{12}b^3+8492373120a^{13}b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{131072(45912240a^{14}b^3+1947792a^{15}b^3+2594101617831916339 2b^4-4147666762767099494 4ab^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(9466192184566579200 0a^2b^4-5954608749608386560a^3b^4+2124840505791725568 0a^4b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(417333234097511424a^5b^4+979202192033640960a^6b^4+23674554904366080a^7b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(1319080234763520a^8b^4+239192223842880a^9b^4+58647685995360a^{10}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(654569667360a^{11}b^4+84112741440a^{12}b^4+423644760a^{13}b^4+30260340a^{14}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-7448984828674965504b^5+2294356812059600 4864ab^5-8250058245827543040a^2b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(1479843527378554060 8a^3b^5-417333234097511424a^4b^5+133340740058637619 2a^5b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(1387652099581440 0a^6b^5+30294926136059904a^7b^5+403001238644928a^8b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(211792515536448a^9b^5+1997908688160a^{10}b^5+463267099008a^{11}b^5+2102818536a^{12}b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(254186856a^{13}b^5+1511475811264036864b^6-2670969522028953600ab^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(4834484937423912960a^2b^6-655755966671984640a^3b^6+979202192033640960a^4b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-1387652099581440 0a^5b^6+39814926411617280a^6b^6+223040891969280a^7b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(449675387995680a^8b^6+3081641824800a^9b^6+1511564503680a^{10}b^6+5776974000a^{11}b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{131072(1251677700a^{12}b^6-225747898745241600b^7+653655295920635904ab^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-286088788492683264a^2b^7+380668112993642496a^3b^7-23674554904366080a^4b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(30294926136059904a^5b^7-223040891969280a^6b^7+576376172064000a^7b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(1635980781600a^8b^7+3032869276800a^9b^7+8351853840a^{10}b^7+3796297200a^{11}b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(25468769585086464b^8-4636764395107891 2ab^8+73488037086731520a^2b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-12411632232552960a^3b^8+1319008023476352 0a^4b^8-403001238644928a^5b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(449675387995680a^6b^8-1635980781600a^7b^8+3817288490400a^8b^8+4298748300a^9b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(7307872110a^{10}b^8-2205749914587648b^9+6087033574989312ab^9-2830362252157440a^2b^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(3161240677647360a^3b^9-239192223842880a^4b^9+211792515536448a^5b^9-3081641824800a^6b^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(3032869276800a^7b^9-4298748300a^8b^9+9075135300a^9b^9+147948773077248b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-267452777940480ab^{10}+385171067635200a^2b^{10}-67636609729920a^3b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(58647685995360a^4b^{10}-1997908688160a^5b^{10}+1511564503680a^6b^{10}-8351853840a^7b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(7307872110a^8b^{10}-77059448294 40b^{11}+20310289142784ab^{11}-9214702632576a^2b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{131072(9071028833664a^3b^{11}-654569667360a^4b^{11}+463267099008a^5b^{11}-5776974000a^6b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(3796297200a^7b^{11}+310606256896b^{12}-538587975744ab^{12}+714494944800a^2b^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-112495612320a^3b^{12}+84112741440a^4b^{12}-2102818536a^5b^{12}+1251677700a^6b^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-9588825792b^{13}+23985898944ab^{13}-9600101280a^2b^{13}+8492373120a^3b^{13}-423644760a^4b^{13})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(254186856a^5b^{13}+222345312b^{14}-350382240ab^{14}+427616640a^2b^{14}-45912240a^3b^{14})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(30260340a^4b^{14}-3745440b^{15}+8727936ab^{15}-2450448a^2b^{15}+1947792a^3b^{15}+43248b^{16})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{131072(-53550ab^{16}+58905a^2b^{16}-306b^{17}+630ab^{17}+b^{18})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}\Bigg\}-$$

$$-\frac{\Gamma(\frac{b+2}{2})}{\Gamma(\frac{a}{2})}\Bigg\{\frac{1048576(48500033587878297600a+113280210944026214440a^2+211400110053670256 64a^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}$$

$$+\frac{1048576(279502310606792294 4a^4+157402554879187353 6a^5+128758187796725760a^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(331757660067348 48a^7+1737630410723328a^8+240371614509312a^9+8050302965760a^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(638746221312a^{11}+13154598912a^{12}+603267168a^{13}+6887040a^{14}+172176a^{15}+816a^{16})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(9a^{17}+48500033587878297600b+835770210372267540 48a^2b+803408536626895257 6a^3b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(131057667389561896 96a^4b+9182533859619635 20a^5b+4832233583493693 44a^6b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576(23020491316207616a^7b+5654596258046208a^8b+177925617745920a^9b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(23543562530048a^{10}b+465775063040a^{11}b+35113632736a^{12}b+392680960a^{13}b)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(16797360a^{14}b+79968a^{15}b+1785a^{16}b-1132802109440262144 0b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(8357702103722675 4048ab^2+3361849155291984 6912a^3b^2+1610580577687961600a^4b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(2326378986350354432a^5b^2+92960637851361280a^6b^2+45218555603989504a^7b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(1285000248576000a^8b^2+296035410612480a^9b^2+5498064732160a^{10}b^2+683281861696a^{11}b^2)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(7361244800a^{12}b^2+516583760a^{13}b^2+2423520a^{14}b^2+94248a^{15}b^2+211400110053670256 64b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-8034085366268952576ab^3+3361849155291984 6912a^2b^3+4891283590711992320a^4b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(1283876372804157 44a^5b^3+165510896176890880a^6b^3+3878969853214720a^7b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(1734099087578880a^8b^3+28871685427200a^9b^3+6174643478080a^{10}b^3+62291568640a^{11}b^3)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(7178203760a^{12}b^3+32463200a^{13}b^3+2086920a^{14}b^3-2795023106067922944b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(1310576673895618 9696ab^4-1610580577687961600a^2b^4+4891283590711992320a^3b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(3099498365353815 04a^5b^4+4639359573094400a^6b^4+5366111189204480a^7b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576(72693320663040a^8b^4+29762423312160a^9b^4+267366915200a^{10}b^4+52694561360a^{11}b^4)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(222520480a^{12}b^4+23535820a^{13}b^4+1574025548791873536b^5-918253385961963520ab^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(2326378986350354432a^2b^5-128387637280415744a^3b^5+309949836535381504a^4b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(9319447558181376a^6b^5+78989552345088a^7b^5+82270476664992a^8b^5+594896924160a^9b^5)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(222498227952a^{10}b^5+831884256a^{11}b^5+150201324a^{12}b^5-128758187796725760b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(48322335834936944ab^6-92960637851361280a^2b^6+16551089617689088a^3b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-4639359573094400a^4b^6+9319447558181376a^5b^6+135601809678720a^7b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(604067587200a^8b^6+567933181200a^9b^6+1694579040a^{10}b^6+577697400a^{11}b^6)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(331757660067348488b^7-23020491316207616ab^7+4521855603989504a^2b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-3878969853214720a^3b^7+5366111189204480a^4b^7-78989552345088a^5b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(135601809678720a^6b^7+901508929200a^8b^7+1637618400a^9b^7+1391975640a^{10}b^7)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-17376304107233328b^8+5654596258046208ab^8-1285000248576000a^2b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(1734099087578880a^3b^8-72693320663040a^4b^8+82270476664992a^5b^8-604067587200a^6b^8)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

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$$+\frac{1048576(901508929200a^7b^8+2149374150a^9b^8+240371614509312b^9-177925617745920ab^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(296035410612480a^2b^9-28871685427200a^3b^9+29762423312160a^4b^9-594896924160a^5b^9)}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(567933181200a^6b^9-1637618400a^7b^9+2149374150a^8b^9-8050302965760b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(23543562530048ab^{10}-5498064732160a^2b^{10}+6174643478080a^3b^{10}-267366915200a^4b^{10})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(222498227952a^5b^{10}-1694579040a^6b^{10}+1391975640a^7b^{10}+638746221312b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-465775063040ab^{11}+683281861696a^2b^{11}-62291568640a^3b^{11}+52694561360a^4b^{11})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-831884256a^5b^{11}+577697400a^6b^{11}-13154598912b^{12}+35113632736ab^{12})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-7361244800a^2b^{12}+7178203760a^3b^{12}-222520480a^4b^{12}+150201324a^5b^12+603267168b^{13})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-392680960ab^{13}+516583760a^2b^{13}-32463200a^3b^{13}+23535820a^4b^{13}-6887040b^{14})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(16797360ab^{14}-2423520a^2b^{14}+2086920a^3b^{14}+172176b^{15}-79968ab^{15}+94248a^2b^{15})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}+$$

$$+\frac{1048576(-816b^{16}+1785ab^{16}+9b^{17})}{\Big[\prod_{\sigma=0}^{18}\{a-b-2\sigma\}\Big]\Big[\prod_{\varsigma=1}^{17}\{a-b+2\varsigma\}\Big]}\Big\}\Big]$$

On simplification the result (8) is established.

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