1205.5935v1: residuals

equations measured 2026-09-22T13:19:10Z against the model of 2026-09-22

Corrected (28)

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0048 (was)	17	■ 0.863	`\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}\left(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a\right)+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a \downharpoonleft a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \left.\quad=(-1)^{r-1}\left(a \downharpoonleft a_{r}\right) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}`	$\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}\left(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a\right)+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a \downharpoonleft a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \left.\quad=(-1)^{r-1}\left(a \downharpoonleft a_{r}\right) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}$	$\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a)+\sum_{j=1}^{r-1}(-1)^{j-1}(a \rfloor a_{j}) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \quad=(-1)^{r-1}(a \rfloor a_{r}) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}(a\rfloor a_{j}) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}$
1205.5935v1_EQ0048 (now)	17	—	`\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}\left(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a\right)+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a \downharpoonleft a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \quad=(-1)^{r-1}\left(a \downharpoonleft a_{r}\right) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}`	$\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}\left(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a\right)+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a \downharpoonleft a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \quad=(-1)^{r-1}\left(a \downharpoonleft a_{r}\right) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}\left(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}$	$\begin{aligned} & \frac{1}{2}\left[a a_{1} a_{2} \cdots a_{r}-(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right] \\ & \quad=\frac{1}{2}(-1)^{r-1}(a_{1} a_{2} \cdots a_{r-1} a a_{r}+a_{1} a_{2} \cdots a_{r-1} a_{r} a)+\sum_{j=1}^{r-1}(-1)^{j-1}(a \rfloor a_{j}) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \\ & \quad=(-1)^{r-1}(a \rfloor a_{r}) a_{1} a_{2} \cdots a_{r-1}+\sum_{j=1}^{r-1}(-1)^{j-1}(a\rfloor a_{j}) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r-1} a_{r} \end{aligned}$
basis: source / source					
1205.5935v1_EQ0062 (was)	19	■ 0.953	`\begin{aligned} & \frac{1}{r!} \sum_{\pi_{j}}\left(\operatorname{sgn} \pi_{j}\right) e_{j} a_{\pi_{j}(1)} a_{\pi_{j}(2)} \cdots a_{\pi_{j}(r)} \\ & \left.\quad=\frac{1}{2}(-1)^{j-1} a e_{j} e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+(-1)^{j}(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a \\ & \left.\quad=\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r} \end{aligned}`	$\begin{aligned} & \frac{1}{r!} \sum_{\pi_{j}}\left(\operatorname{sgn} \pi_{j}\right) e_{j} a_{\pi_{j}(1)} a_{\pi_{j}(2)} \cdots a_{\pi_{j}(r)} \\ & \left.\quad=\frac{1}{2}(-1)^{j-1} a e_{j} e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+(-1)^{j}(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a \\ & \left.\quad=\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r} \end{aligned}$	$\begin{aligned} & \frac{1}{r!} \sum_{\pi_{j}}(\operatorname{sgn} \pi_{j}) e_{j} a_{\pi_{j}(1)} a_{\pi_{j}(2)} \cdots a_{\pi_{j}(r)} \qquad (\\ & \quad=\frac{1}{2}(-1)^{j-1} a e_{j} e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+(-1)^{j}(a\rfloor e_{j}) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a \\ & \quad=\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}(a\rfloor e_{j}) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}. \qquad (\end{aligned}$

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0062 (now)	19	—	\begin{aligned} & \frac{1}{r!} \sum_{\pi_{j}}\left(\operatorname{sgn} \pi_{j}\right) e_{j} a_{\pi_{j}(1)} a _{\pi_{j}(2)} \cdots a_{\pi_{j}(r)} \\ & \quad=\frac{1} {2}(-1)^{j-1} a e_{j} e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+(-1)^{j}\left(a\rfloor e_{j}\right) e_{1} e_ {2} \cdots \check{e}_{j} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a \\ & \quad=\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}\left(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r} \end{aligned}	$\frac{1}{r!} \sum_{\pi_{j}}\left(\operatorname{sgn} \pi_{j}\right) e_{j} a_{\pi_{j}(1)} a _{\pi_{j}(2)} \cdots a_{\pi_{j}(r)}$ $=\frac{1}{2}(-1)^{j-1} a e_{j} e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+(-1)^{j}\left(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a$ $=\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}\left(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}$	$\frac{1}{r!}\sum_{\pi_j}(\operatorname{sgn}\pi_j)e_j a_{\pi_j(1)}a_{\pi_j(2)}\cdots a_{\pi_j(r)}$ ($=\frac{1}{2}(-1)^{j-1}ae_je_1e_2\cdots\check{e}_j\cdots e_r+(-1)^j(a\rfloor e_j)e_1e_2\cdots\check{e}_j\cdots e_r+\frac{1}{2}(-1)^re_1e_2\cdots e_ra$ $=\frac{1}{2}ae_1e_2\cdots e_r+\frac{1}{2}(-1)^re_1e_2\cdots e_ra+(-1)^j(a\rfloor e_j)e_1e_2\cdots\check{e}_j\cdots e_r.$ (
basis: source / source					
1205.5935v1_EQ0063 (was)	19	■ 0.919	\begin{aligned} & a \wedge e_{1} \wedge e_{2} \wedge \cdots \wedge e_{r} \\ & \qquad \begin{array}{l} =\frac {1}{r+1}\left[a e_{1} e_{2} \cdots e_{r}+\sum_{j=1}^{r} \left(\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2 }(-1)^{r} e_{1} e_{2} \cdots e_{r} a+\right.\right. \\ \left.\left.\left.\quad(-1)^{j}(a\rfloor e_{j}\right) e_{ 1} e_{2} \cdots \check{e}_{j} \cdots e_{r}\right)\right] \\ \quad=\left(\frac{1}{r+1}+\frac{r}{2 r+2}\right) a e_{ 1} e_{2} \cdots e_{r}+\frac{r}{2 r+2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a- \end{array} \end{aligned}	$a \wedge e_{1} \wedge e_{2} \wedge \cdots \wedge e_{r}$ $=\frac{1}{r+1}\left[a e_{1} e_{2} \cdots e_{r}+\sum_{j=1}^{r}\left(\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}(a\rfloor e_{j}) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}\right)\right]$ $=\left(\frac{1}{r+1}+\frac{r}{2 r+2}\right) a e_{1} e_{2} \cdots e_{r}+\frac{r}{2 r+2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a-$	$a\wedge e_1\wedge e_2\wedge\cdots\wedge e_r$ $=\frac{1}{r+1}\left[ae_1e_2\cdots e_r+\sum_{j=1}^{r}\left(\frac{1}{2}ae_1e_2\cdots e_r+\frac{1}{2}(-1)^re_1e_2\cdots e_ra+(-1)^j(a\rfloor e_j)e_1e_2\cdots\check{e}_j\cdots e_r\right)\right]$ $=\left(\frac{1}{r+1}+\frac{r}{2r+2}\right)ae_1e_2\cdots e_r+\frac{r}{2r+2}(-1)^re_1e_2\cdots e_ra-$
1205.5935v1_EQ0063 (now)	19	—	\begin{aligned} & a \wedge e_{1} \wedge e_{2} \wedge \cdots \wedge e_{r} \\ & \qquad \begin{array}{l} =\frac {1}{r+1}\left[a e_{1} e_{2} \cdots e_{r}+\sum_{j=1}^{r} \left(\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2 }(-1)^{r} e_{1} e_{2} \cdots e_{r} a+\right.\right. \\ \left.\left.\quad(-1)^{j}\left(a\rfloor e_{j}\right) e_{1 } e_{2} \cdots \check{e}_{j} \cdots e_{r}\right)\right] \\ \quad=\left(\frac{1}{r+1}+\frac{r}{2 r+2}\right) a e_{1 } e_{2} \cdots e_{r}+\frac{r}{2 r+2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a- \end{array} \end{aligned}	$a \wedge e_{1} \wedge e_{2} \wedge \cdots \wedge e_{r}$ $=\frac{1}{r+1}\left[a e_{1} e_{2} \cdots e_{r}+\sum_{j=1}^{r}\left(\frac{1}{2} a e_{1} e_{2} \cdots e_{r}+\frac{1}{2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a+(-1)^{j}\left(a\rfloor e_{j}\right) e_{1} e_{2} \cdots \check{e}_{j} \cdots e_{r}\right)\right]$ $=\left(\frac{1}{r+1}+\frac{r}{2 r+2}\right) a e_{1} e_{2} \cdots e_{r}+\frac{r}{2 r+2}(-1)^{r} e_{1} e_{2} \cdots e_{r} a-$	$a\wedge e_1\wedge e_2\wedge\cdots\wedge e_r$ $=\frac{1}{r+1}\left[ae_1e_2\cdots e_r+\sum_{j=1}^{r}\left(\frac{1}{2}ae_1e_2\cdots e_r+\frac{1}{2}(-1)^re_1e_2\cdots e_ra+(-1)^j(a\rfloor e_j)e_1e_2\cdots\check{e}_j\cdots e_r\right)\right]$ $=\left(\frac{1}{r+1}+\frac{r}{2r+2}\right)ae_1e_2\cdots e_r+\frac{r}{2r+2}(-1)^re_1e_2\cdots e_ra-$
basis: source / source					

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0072 (was)	21	0.720	`\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s}= & \left.\sum_{j=0}^{r-1}[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}\right] \\ = & a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \left.\sum_{j=1}^{r-1}[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}`	$\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s}= & \left.\sum_{j=0}^{r-1}[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}\right] \\ = & a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \left.\sum_{j=1}^{r-1}[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}$	$\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s} &= \sum_{j=0}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}\right] \\ &= a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \sum_{j=1}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}$
1205.5935v1_EQ0072 (now)	21	—	`\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s}= & \sum_{j=0}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}\right] \\ = & a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \sum_{j=1}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}`	$\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s}= & \sum_{j=0}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}\right] \\ = & a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \sum_{j=1}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2 j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}$	$\begin{aligned} \boldsymbol{A}_{\boldsymbol{r}} B_{s} &= \sum_{j=0}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}\right] \\ &= a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+1}+ \\ & \sum_{j=1}^{r-1}\left[a\rfloor\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j+1}+a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s-r+2j-1}\right]+ \\ & a \wedge\left\langle\boldsymbol{A}_{\boldsymbol{r}-\mathbf{1}} B_{s}\right\rangle_{s+r-1} . \end{aligned}$
basis: source / source					
1205.5935v1_EQ0076 (was)	21	0.688	`\begin{aligned} a \downharpoonleft\left(A_{r} B_{s}\right) & \left.=\left(a \downharpoonleft A_{r}\right) B_{s}+(-1)^{r} A_{r}(a\rfloor B_{s}\right) \\ & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a \wedge B_{s}\right) \\ a \wedge\left(A_{r} B_{s}\right) & \left.=\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}(a\rfloor B_{s}\right) \\ & \left.=(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r}\left(a \wedge B_{s}\right) . \end{aligned}`	$\begin{aligned} a \downharpoonleft\left(A_{r} B_{s}\right) & =\left(a \downharpoonleft A_{r}\right) B_{s}+(-1)^{r} A_{r}(a\rfloor B_{s}) \\ & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a \wedge B_{s}\right) \\ a \wedge\left(A_{r} B_{s}\right) & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}(a\rfloor B_{s}) \\ & =(a\rfloor A_{r}) B_{s}+(-1)^{r} A_{r}\left(a \wedge B_{s}\right) . \end{aligned}$	$\begin{aligned} a\rfloor(A_r B_s) &= (a\rfloor A_r)B_s+(-1)^r A_r(a\rfloor B_s) \\ &= (a\wedge A_r)B_s-(-1)^r A_r(a\wedge B_s) \\ a\wedge(A_r B_s) &= (a\wedge A_r)B_s-(-1)^r A_r(a\rfloor B_s) \\ &= (a\rfloor A_r)B_s+(-1)^r A_r(a\wedge B_s). \end{aligned}$

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0076 (now)	21	—	\begin{aligned} a \downharpoonleft\left(A_{r} B_{s}\right) & =\left(a \downharpoonleft A_{r}\right) B_{s}+(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \\ & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a \wedge B_{s}\right) \\ a \wedge\left(A_{r} B_{s}\right) & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \\ & =\left(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r} \left(a \wedge B_{s}\right) . \end{aligned}	$\begin{aligned} a \downharpoonleft\left(A_{r} B_{s}\right) & =\left(a \downharpoonleft A_{r}\right) B_{s}+(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \\ & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a \wedge B_{s}\right) \\ a \wedge\left(A_{r} B_{s}\right) & =\left(a \wedge A_{r}\right) B_{s}-(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \\ & =\left(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r} \left(a \wedge B_{s}\right) . \end{aligned}$	$\begin{aligned} a \rfloor (A_r B_s) &= (a \rfloor A_r) B_s + (-1)^r A_r (a \rfloor B_s) \\ &= (a \wedge A_r) B_s - (-1)^r A_r (a \wedge B_s) \\ a \wedge (A_r B_s) &= (a \wedge A_r) B_s - (-1)^r A_r (a \rfloor B_s) \\ &= (a \rfloor A_r) B_s + (-1)^r A_r (a \wedge B_s). \end{aligned}$
basis: source / source					
1205.5935v1_EQ0077 (was)	22	0.560	\begin{aligned} a\rfloor\left(A_{r} B_{s}\right) & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r+s} A_{r} B_{s} a\right) \\ & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r} A_{r} a B_{s}\right)+\frac{1}{2}(-1)^{r}\left(A_{r} a B_{s}-(-1)^{s} A_{r} B_{s} a\right) \\ & \left.\left.=(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r}(a\rfloor B_{s}\right) \end{aligned}	$\begin{aligned} a\rfloor\left(A_{r} B_{s}\right) & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r+s} A_{r} B_{s} a\right) \\ & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r} A_{r} a B_{s}\right)+\frac{1}{2}(-1)^{r}\left(A_{r} a B_{s}-(-1)^{s} A_{r} B_{s} a\right) \\ & =(a\rfloor A_{r}) B_{s}+(-1)^{r} A_{r}(a\rfloor B_{s}) \end{aligned}$	$\begin{aligned} a \rfloor (A_r B_s) &= \frac{1}{2}(a A_r B_s - (-1)^{r+s} A_r B_s a) \\ &= \frac{1}{2}(a A_r B_s - (-1)^r A_r a B_s) + \frac{1}{2}(-1)^r (A_r a B_s - (-1)^s A_r B_s a) \\ &= (a \rfloor A_r) B_s + (-1)^r A_r (a \rfloor B_s) \end{aligned}$
1205.5935v1_EQ0077 (now)	22	—	\begin{aligned} a\rfloor\left(A_{r} B_{s}\right) & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r+s} A_{r} B_{s} a\right) \\ & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r} A_{r} a B_{s}\right)+\frac{1}{2}(-1)^{r}\left(A_{r} a B_{s}-(-1)^{s} A_{r} B_{s} a\right) \\ & =\left(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \end{aligned}	$\begin{aligned} a\rfloor\left(A_{r} B_{s}\right) & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r+s} A_{r} B_{s} a\right) \\ & =\frac{1}{2}\left(a A_{r} B_{s}-(-1)^{r} A_{r} a B_{s}\right)+\frac{1}{2}(-1)^{r}\left(A_{r} a B_{s}-(-1)^{s} A_{r} B_{s} a\right) \\ & =\left(a\rfloor A_{r}\right) B_{s}+(-1)^{r} A_{r}\left(a\rfloor B_{s}\right) \end{aligned}$	$\begin{aligned} a \rfloor (A_r B_s) &= \frac{1}{2}(a A_r B_s - (-1)^{r+s} A_r B_s a) \\ &= \frac{1}{2}(a A_r B_s - (-1)^r A_r a B_s) + \frac{1}{2}(-1)^r (A_r a B_s - (-1)^s A_r B_s a) \\ &= (a \rfloor A_r) B_s + (-1)^r A_r (a \rfloor B_s) \end{aligned}$
basis: source / source					
1205.5935v1_EQ0080 (was)	22	0.328	\begin{aligned} a\rfloor\left(a_{1} a_{2} \cdots a_{r}\right) & =\frac{1}{2}\left(a a_{1} a_{2} \cdots a_{r} -(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right) \\ & \left.= \sum_{j=1}^{r}(-1)^{j-1}(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r} \end{aligned}	$\begin{aligned} a\rfloor\left(a_{1} a_{2} \cdots a_{r}\right) & =\frac{1}{2}\left(a a_{1} a_{2} \cdots a_{r} -(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right) \\ & \left.= \sum_{j=1}^{r}(-1)^{j-1}(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r} \end{aligned}$	$\begin{aligned} a \rfloor (a_1 a_2 \cdots a_r) &= \frac{1}{2}(a a_1 a_2 \cdots a_r - (-1)^r a_1 a_2 \cdots a_r a) \\ &= \sum_{j=1}^{r} (-1)^{j-1} (a \rfloor a_j)\, a_1 a_2 \cdots \check{a}_j \cdots a_r. \end{aligned}$
1205.5935v1_EQ0080 (now)	22	—	\begin{aligned} a\rfloor\left(a_{1} a_{2} \cdots a_{r}\right) & =\frac{1}{2}\left(a a_{1} a_{2} \cdots a_{r} -(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right) \\ & =\sum_{j=1}^{r}(-1)^{j-1}\left(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r} \end{aligned}	$\begin{aligned} a\rfloor\left(a_{1} a_{2} \cdots a_{r}\right) & =\frac{1}{2}\left(a a_{1} a_{2} \cdots a_{r} -(-1)^{r} a_{1} a_{2} \cdots a_{r} a\right) \\ & =\sum_{j=1}^{r}(-1)^{j-1}\left(a\rfloor a_{j}\right) a_{1} a_{2} \cdots \check{a}_{j} \cdots a_{r} \end{aligned}$	$\begin{aligned} a \rfloor (a_1 a_2 \cdots a_r) &= \frac{1}{2}(a a_1 a_2 \cdots a_r - (-1)^r a_1 a_2 \cdots a_r a) \\ &= \sum_{j=1}^{r} (-1)^{j-1} (a \rfloor a_j)\, a_1 a_2 \cdots \check{a}_j \cdots a_r. \end{aligned}$

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
basis: source / source					
1205.5935v1_EQ0084 (was)	23	■ 0.605	`\begin{aligned} & \left.a \downharpoonleft\left(A_{r} \wedge B_{s}\right)=\left(a \downharpoonleft A_{r}\right) \wedge B_{s}+(-1)^{r} A_{r} \wedge(a\rfloor B_{s}\right) \\ & a \wedge\left(A_{r}\left\lfloor B_{s}\right)=\left(a \wedge A_{r}\right)\left\lfloor B_{s}-(-1)^{r} A_{r}\left\lfloor(a\rfloor B_{s}\right)\right.\right. \\ & \left.\left.\left.\left.a \wedge\left(A_{r}\right\rfloor B_{s}\right)=(a\rfloor A_{r}\right)\right\rfloor B_{s}+(-1)^{r} A_{r}\right\rfloor\left(a \wedge B_{s}\right) . \end{aligned}`	$a \downharpoonleft (A_r \wedge B_s) = (a \downharpoonleft A_r) \wedge B_s + (-1)^r A_r \wedge (a \rfloor B_s)$ $a \wedge (A_r \lfloor B_s) = (a \wedge A_r) \lfloor B_s - (-1)^r A_r \lfloor (a \rfloor B_s)$ $a \wedge (A_r \rfloor B_s) = (a \rfloor A_r) \rfloor B_s + (-1)^r A_r \rfloor (a \wedge B_s)\,.$	$a \rfloor (A_r \wedge B_s) = (a \rfloor A_r) \wedge B_s + (-1)^r A_r \wedge (a \rfloor B_s)$ $a \wedge (A_r \lfloor B_s) = (a \wedge A_r) \lfloor B_s - (-1)^r A_r \lfloor (a \rfloor B_s)$ $a \wedge (A_r \rfloor B_s) = (a \rfloor A_r) \rfloor B_s + (-1)^r A_r \rfloor (a \wedge B_s).$
1205.5935v1_EQ0084 (now)	23	—	`\begin{aligned} & a \downharpoonleft\left(A_{r} \wedge B_{s}\right)=\left(a \downharpoonleft A_{r}\right) \wedge B_{s}+(-1)^{r} A_{r} \wedge\left(a\rfloor B_{s}\right) \\ & a \wedge\left(A_{r}\left\lfloor B_{s}\right)=\left(a \wedge A_{r}\right)\left\lfloor B_{s}-(-1)^{r} A_{r}\left\lfloor(a\rfloor B_{s}\right)\right.\right. \\ & \left.\left.\left.a \wedge\left(A_{r}\right\rfloor B_{s}\right)=\left(a\rfloor A_{r}\right)\right\rfloor B_{s}+(-1)^{r} A_{r}\right\rfloor\left(a \wedge B_{s}\right) . \end{aligned}`	$a \downharpoonleft (A_r \wedge B_s) = (a \downharpoonleft A_r) \wedge B_s + (-1)^r A_r \wedge (a \rfloor B_s)$ $a \wedge (A_r \lfloor B_s) = (a \wedge A_r) \lfloor B_s - (-1)^r A_r \lfloor (a \rfloor B_s)$ $a \wedge (A_r \rfloor B_s) = (a \rfloor A_r) \rfloor B_s + (-1)^r A_r \rfloor (a \wedge B_s)\,.$	$a \rfloor (A_r \wedge B_s) = (a \rfloor A_r) \wedge B_s + (-1)^r A_r \wedge (a \rfloor B_s)$ $a \wedge (A_r \lfloor B_s) = (a \wedge A_r) \lfloor B_s - (-1)^r A_r \lfloor (a \rfloor B_s)$ $a \wedge (A_r \rfloor B_s) = (a \rfloor A_r) \rfloor B_s + (-1)^r A_r \rfloor (a \wedge B_s).$
basis: source / source					
1205.5935v1_EQ0107 (was)	27	■ 0.636	`\begin{aligned} & \left.\left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right\rfloor\left[\sum_{j=1}^{r}(-1)^{1-j}(a\rfloor a_{i_{j}}\right) a_{i_{1}} \wedge \cdots \wedge \check{a}_{i_{j}} \wedge \cdots \wedge a_{i_{r}}\right] \\ & \left.\left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right\rfloor[a\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right)\right] \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1}\left(\boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \wedge a\right)\right\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}\left(a \wedge \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right)\right\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)} \boldsymbol{B}_{\boldsymbol{r}}\right\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \end{aligned}`	$= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \Big\rfloor \left[\sum_{j=1}^r (-1)^{1-j} (a \rfloor a_{i_j} \Big) a_{i_1} \wedge \cdots \wedge \check{a}_{i_j} \wedge \cdots \wedge a_{i_r} \right]$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \Big\rfloor [a \rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r}) \Big]$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} (\boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \wedge a) \Big\rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (a \wedge \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}) \Big\rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})$ $= (-1)^{\sum_{k=1}^r (i_k-k)} \boldsymbol{B}_{\boldsymbol{r}} \Big\rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})$	$= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \rfloor \left[\sum_{j=1}^r (-1)^{1-j} (a \rfloor a_{i_j})\, a_{i_1} \wedge \cdots \wedge \check{a}_{i_j} \wedge \cdots \wedge a_{i_r} \right]$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \rfloor [a \rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})]$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (-1)^{r-1} (\boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \wedge a) \rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})$ $= (-1)^{\sum_{k=1}^r (i_k-k)} (a \wedge \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}) \rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r})$ $= (-1)^{\sum_{k=1}^r (i_k-k)} \boldsymbol{B}_{\boldsymbol{r}} \rfloor (a_{i_1} \wedge \cdots \wedge a_{i_r}).$ (101

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0107 (now)	27	—	\begin{aligned} & \left.\left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right\rfloor\left[\sum_{j=1}^{r}(-1)^{1-j}(a \rfloor a_{i_{j}}\right) a_{i_{1}} \wedge \cdots \wedge \check{a}_{i_{j}} \wedge \cdots \wedge a_{i_{r}}\right] \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right\rfloor\left[a\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right)\right] \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}(-1)^{r-1}\left(\boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \wedge a\right)\right\rfloor \left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)}\left(a \wedge \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\right)\right\rfloor\left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \\ & \left.=(-1)^{\sum_{k=1}^{r}\left(i_{k}-k\right)} \boldsymbol{B}_{\boldsymbol{r}}\right\rfloor \left(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}\right) \end{aligned}	$\begin{aligned} & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\Big\rfloor\left[\sum_{j=1}^{r}(-1)^{1-j}(a \rfloor a_{i_{j}}\Big) a_{i_{1}} \wedge \cdots \wedge \check{a}_{i_{j}} \wedge \cdots \wedge a_{i_{r}}\right] \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1} \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}}\Big\rfloor\left[a\rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}})\right] \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1}(\boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}} \wedge a)\Big\rfloor (a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}) \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(a \wedge \boldsymbol{B}_{\boldsymbol{r}-\mathbf{1}})\Big\rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}) \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)} \boldsymbol{B}_{\boldsymbol{r}}\Big\rfloor (a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}) \end{aligned}$	$\begin{aligned} & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1} \boldsymbol{B_{r-1}} \rfloor \left[\sum_{j=1}^{r}(-1)^{1-j}(a \rfloor a_{i_{j}}) a_{i_{1}} \wedge \cdots \wedge \check{a}_{i_{j}} \wedge \cdots \wedge a_{i_{r}}\right] \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1} \boldsymbol{B_{r-1}} \rfloor [a \rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}})] \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(-1)^{r-1}(\boldsymbol{B_{r-1}} \wedge a) \rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}) \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)}(a \wedge \boldsymbol{B_{r-1}}) \rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}) \\ & =(-1)^{\sum_{k=1}^{r}(i_{k}-k)} \boldsymbol{B_{r}} \rfloor(a_{i_{1}} \wedge \cdots \wedge a_{i_{r}}). \qquad (101 \end{aligned}$
basis: source / source					
1205.5935v1_EQ0130 (was)	32	0.488	\begin{aligned} a \downharpoonleft(A B) & =(a \downharpoonleft A) B+A^{*}(a \downharpoonleft B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(A B) & \left.=(a \wedge A) B-A^{*}(a\rfloor B\right) \\ & =(a \downharpoonleft A) B+A^{*}(a \wedge B) . \end{aligned}	$\begin{aligned} a \downharpoonleft(A B) & =(a \downharpoonleft A) B+A^{*}(a \downharpoonleft B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(A B) & =(a \wedge A) B-A^{*}(a\rfloor B) \\ & =(a \downharpoonleft A) B+A^{*}(a \wedge B) . \end{aligned}$	$\begin{aligned} a \rfloor(AB) & =(a \rfloor A) B+A^{*}(a \rfloor B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(AB) & =(a \wedge A) B-A^{*}(a \rfloor B) \\ & =(a \rfloor A) B+A^{*}(a \wedge B) . \end{aligned}$
1205.5935v1_EQ0130 (now)	32	—	\begin{aligned} a \downharpoonleft(A B) & =(a \downharpoonleft A) B+A^{*}(a \downharpoonleft B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(A B) & =(a \wedge A) B-A^{*}\left(a\rfloor B\right) \\ & =(a \downharpoonleft A) B+A^{*}(a \wedge B) . \end{aligned}	$\begin{aligned} a \downharpoonleft(A B) & =(a \downharpoonleft A) B+A^{*}(a \downharpoonleft B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(A B) & =(a \wedge A) B-A^{*}\left(a\rfloor B\right) \\ & =(a \downharpoonleft A) B+A^{*}(a \wedge B) . \end{aligned}$	$\begin{aligned} a \rfloor(AB) & =(a \rfloor A) B+A^{*}(a \rfloor B) \\ & =(a \wedge A) B-A^{*}(a \wedge B) \\ a \wedge(AB) & =(a \wedge A) B-A^{*}(a \rfloor B) \\ & =(a \rfloor A) B+A^{*}(a \wedge B) . \end{aligned}$
basis: source / source					

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

<table>
<tr><th>Identifier</th><th>Page</th><th>Conf.</th><th>LaTeX source</th><th>Rendered</th><th>Scan image</th></tr>
<tr><td>1205.5935v1_EQ0131 (was)</td><td>32</td><td>■ 0.312</td><td><code>\begin{aligned} a \downharpoonleft(A \wedge B) & \left.=(a\lrcorner A) \wedge B+A^{*} \wedge(a\lrcorner B\right) \\ a \wedge(A\lfloor B) & =(a \wedge A)\left\lfloor B-A^{*}\lfloor(a\rfloor B)\right. \\ a \wedge(A\rfloor B) & \left.=(a\rfloor A)\rfloor B+A^{*}\right\rfloor(a \wedge B) . \end{aligned}</code></td><td>$$\begin{aligned} a \downharpoonleft(A \wedge B) & \left.=(a\lrcorner A) \wedge B+A^{*} \wedge(a\lrcorner B\right) \\ a \wedge(A\lfloor B) & =(a \wedge A)\left\lfloor B-A^{*}\lfloor(a\rfloor B)\right. \\ a \wedge(A\rfloor B) & \left.=(a\rfloor A)\rfloor B+A^{*}\right\rfloor(a \wedge B) . \end{aligned}$$</td><td>$$\begin{aligned} a\rfloor(A\wedge B) &= (a\rfloor A)\wedge B + A^{*}\wedge(a\rfloor B) \\ a\wedge(A\lfloor B) &= (a\wedge A)\lfloor B - A^{*}\lfloor(a\rfloor B) \\ a\wedge(A\rfloor B) &= (a\rfloor A)\rfloor B + A^{*}\rfloor(a\wedge B). \end{aligned}$$</td></tr>
<tr><td>1205.5935v1_EQ0131 (now)</td><td>32</td><td>—</td><td><code>\begin{aligned} a \downharpoonleft(A \wedge B) & =(a \lrcorner A) \wedge B+A^{*} \wedge\left(a\lrcorner B \right) \\ a \wedge(A\lfloor B) & =(a \wedge A)\left\lfloor B-A^{*}\lfloor(a\rfloor B)\right. \\ a \wedge (A\rfloor B) & \left.=(a\rfloor A)\rfloor B+A^{*}\right \rfloor(a \wedge B) . \end{aligned}</code></td><td>$$\begin{aligned} a \downharpoonleft(A \wedge B) & =(a \lrcorner A) \wedge B+A^{*} \wedge\left(a\lrcorner B \right) \\ a \wedge(A\lfloor B) & =(a \wedge A)\left\lfloor B-A^{*}\lfloor(a\rfloor B)\right. \\ a \wedge (A\rfloor B) & \left.=(a\rfloor A)\rfloor B+A^{*}\right \rfloor(a \wedge B) . \end{aligned}$$</td><td>$$\begin{aligned} a\rfloor(A\wedge B) &= (a\rfloor A)\wedge B + A^{*}\wedge(a\rfloor B) \\ a\wedge(A\lfloor B) &= (a\wedge A)\lfloor B - A^{*}\lfloor(a\rfloor B) \\ a\wedge(A\rfloor B) &= (a\rfloor A)\rfloor B + A^{*}\rfloor(a\wedge B). \end{aligned}$$</td></tr>
<tr><td colspan="6">basis: source / source</td></tr>
<tr><td>1205.5935v1_EQ0174 (was)</td><td>37</td><td>■ 1.000</td><td><code>\begin{aligned} (A B) *(A C) & =\left\langle(A B)^{\dagger} A C\right\rangle \\ & =\left\langle B^{\dagger} A^{\dagger} A C\right\rangle \\ & =\left.\left.\langle |A\right|^{2} B^{\dagger} C\right\rangle \\ & =|A|^{2} B * C \end{aligned}</code></td><td>$$\begin{aligned} (A B) *(A C) & =\left\langle(A B)^{\dagger} A C\right\rangle \\ & =\left\langle B^{\dagger} A^{\dagger} A C\right\rangle \\ & =\left.\left.\langle |A\right|^{2} B^{\dagger} C\right\rangle \\ & =|A|^{2} B * C \end{aligned}$$</td><td>$$\begin{aligned} (AB)*(AC) &= \left\langle (AB)^{\dagger} AC\right\rangle \\ &= \left\langle B^{\dagger} A^{\dagger} AC\right\rangle \\ &= \left\langle |A|^{2} B^{\dagger} C\right\rangle \\ &= |A|^{2} B*C \end{aligned}$$</td></tr>
<tr><td>1205.5935v1_EQ0174 (now)</td><td>37</td><td>—</td><td><code>\begin{aligned} (A B) *(A C) & =\left\langle(A B)^{\dagger} A C\right\rangle \\ & =\left\langle B^{\dagger} A^{\dagger} A C\right\rangle \\ & =\left.\left\langle | A\right|^{2} B^{\dagger} C\right\rangle \\ & =|A|^{2} B * C \end{aligned}</code></td><td>$$\begin{aligned} (A B) *(A C) & =\left\langle(A B)^{\dagger} A C\right\rangle \\ & =\left\langle B^{\dagger} A^{\dagger} A C\right\rangle \\ & =\left.\left\langle | A\right|^{2} B^{\dagger} C\right\rangle \\ & =|A|^{2} B * C \end{aligned}$$</td><td>$$\begin{aligned} (AB)*(AC) &= \left\langle (AB)^{\dagger} AC\right\rangle \\ &= \left\langle B^{\dagger} A^{\dagger} AC\right\rangle \\ &= \left\langle |A|^{2} B^{\dagger} C\right\rangle \\ &= |A|^{2} B*C \end{aligned}$$</td></tr>
<tr><td colspan="6">basis: source / source</td></tr>
<tr><td>1205.5935v1_EQ0204 (was)</td><td>43</td><td>■ 0.946</td><td><code>\begin{aligned} \left.A_{2} \times(B\rfloor C\right) & \left.\left.=\left(A_{2} \times B\right)\right\rfloor C+B\right\rfloor\left(A_{2} \times C\right) \\ A_{2} \times(B\lfloor C) & =\left(A_{2} \times B\right)\left\lfloor C+B\left\lfloor\left(A_{2} \times C\right)\right.\right. \\ A_{2} \times(B \wedge C) & =\left(A_{2} \times B\right) \wedge C+B \wedge\left(A_{2} \times C\right) \end{aligned}</code></td><td>$$\begin{aligned} \left.A_{2} \times(B\rfloor C\right) & \left.\left.=\left(A_{2} \times B\right)\right\rfloor C+B\right\rfloor\left(A_{2} \times C\right) \\ A_{2} \times(B\lfloor C) & =\left(A_{2} \times B\right)\left\lfloor C+B\left\lfloor\left(A_{2} \times C\right)\right.\right. \\ A_{2} \times(B \wedge C) & =\left(A_{2} \times B\right) \wedge C+B \wedge\left(A_{2} \times C\right) \end{aligned}$$</td><td>$$\begin{aligned} A_{2}\times(B\rfloor C) &= (A_{2}\times B)\rfloor C + B\rfloor(A_{2}\times C) \\ A_{2}\times(B\lfloor C) &= (A_{2}\times B)\lfloor C + B\lfloor(A_{2}\times C) \\ A_{2}\times(B\wedge C) &= (A_{2}\times B)\wedge C + B\wedge(A_{2}\times C). \end{aligned}$$</td></tr>
<tr><td colspan="6">Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value
LaTeX source MathPix's reading, unchanged; Rendered the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ
Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured
[refined: basis] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — basis names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.</td></tr>
</table>

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0204 (now)	43	—	`\begin{aligned} A_{2} \times\left(B\rfloor C\right) & \left.\left.=\left(A_{2} \times B\right)\right\rfloor C+B \right\rfloor\left(A_{2} \times C\right) \\ A_{2} \times (B\lfloor C) & =\left(A_{2} \times B\right)\left\lfloor C +B\left\lfloor\left(A_{2} \times C\right)\right.\right. \\ A_{2} \times(B \wedge C) & =\left(A_{2} \times B\right) \wedge C+B \wedge\left(A_{2} \times C\right) \end{aligned}`	$A_2 \times (B\rfloor C) = (A_2 \times B)\rfloor C + B\rfloor (A_2 \times C)$ $A_2 \times (B\lfloor C) = (A_2 \times B)\lfloor C + B\lfloor (A_2 \times C)$ $A_2 \times (B \wedge C) = (A_2 \times B) \wedge C + B \wedge (A_2 \times C)$	$A_2 \times (B \rfloor C) = (A_2 \times B) \rfloor C + B \rfloor (A_2 \times C)$ $A_2 \times (B \lfloor C) = (A_2 \times B) \lfloor C + B \lfloor (A_2 \times C)$ $A_2 \times (B \wedge C) = (A_2 \times B) \wedge C + B \wedge (A_2 \times C).$
basis: source / source					
1205.5935v1_EQ0229 (was)	48	■ 0.290	`\left.\left.P_{u}(v)=v \downharpoonleft u u^{-1}=(v \rfloor u\right)\right\rfloor u^{-1}`	$P_u(v) = v \downharpoonleft uu^{-1} = (v\rfloor u)\rfloor u^{-1}$	$P_u(v) = v \rfloor uu^{-1} = (v \rfloor u) \rfloor u^{-1}$
1205.5935v1_EQ0229 (now)	48	—	`\left.P_{u}(v)=v \downharpoonleft u u^{-1}=\left(v\rfloor u\right)\right\rfloor u^{-1}`	$P_u(v) = v \downharpoonleft uu^{-1} = (v\rfloor u)\rfloor u^{-1}$	$P_u(v) = v \rfloor uu^{-1} = (v \rfloor u) \rfloor u^{-1}$
basis: source / source					
1205.5935v1_EQ0232 (was)	49	■ 0.557	`\left.\left.P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\left(a \downharpoonleft \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}\right) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}\right\rangle_{r+1}= \langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\right \rangle_{r+1}=0`	$P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\left(a \downharpoonleft \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}\right) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}\rangle_{r+1}= \langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\rangle_{r+1}=0$	$P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}} = (a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}) \wedge \boldsymbol{A}_{\boldsymbol{r}} = \langle a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}} \rangle_{r+1} = \langle a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \rangle_{r+1} = 0.$
1205.5935v1_EQ0232 (now)	49	—	`P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\left(a \downharpoonleft \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}\right) \wedge \boldsymbol{A}_{\boldsymbol{r}}= \left\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}\right\rangle_{r+1}=\left\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\right\rangle_{r+1}=0`	$P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}}=\left(a \downharpoonleft \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}\right) \wedge \boldsymbol{A}_{\boldsymbol{r}}= \left\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}\right\rangle_{r+1}=\left\langle a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\right\rangle_{r+1}=0$	$P_{\boldsymbol{A}_{\boldsymbol{r}}}(a) \wedge \boldsymbol{A}_{\boldsymbol{r}} = (a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}) \wedge \boldsymbol{A}_{\boldsymbol{r}} = \langle a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \boldsymbol{A}_{\boldsymbol{r}} \rangle_{r+1} = \langle a \rfloor \boldsymbol{A}_{\boldsymbol{r}} \rangle_{r+1} = 0.$
basis: source / source					

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

LaTeX source MathPix's reading, unchanged; **Rendered** the same reading, with a display environment (align/alignat/flalign/eqnarray/gather/multline/split) mapped to its in-math form so it can typeset in this cell — the two may legitimately differ

Residual render vs scan (inkdrill): • C component • W weak • S stable • N noise • K clean • X crop overran its region • not measured

[refined: *basis*] beside an identifier: the LaTeX-source and Rendered cells both show a VERIFIED refinement, not MathPix's own reading — *basis* names what verified it (e.g. ink, source). The original reading is unchanged in the model but is not the one drawn here.

Identifier	Page	Conf.	LaTeX source	Rendered	Scan image
1205.5935v1_EQ0235 (was)	49	■ 0.189	`\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)^{-1} \\ & \left.\left.=\left[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\right) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right)\right] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & \left.=a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}`	$\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)^{-1} \\ & =\left[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}})\right] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & =a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}$	$\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}})(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}})^{-1} \\ & =[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}})] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & =a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}$
1205.5935v1_EQ0235 (now)	49	—	`\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)^{-1} \\ & \left.=\left[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}\right) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}\left(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right)\right] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & =a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}\left(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}`	$\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)\left(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}\right)^{-1} \\ & =\left[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}\left(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right)\right] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & =a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}\left(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}\right) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}$	$\begin{aligned} P_{\boldsymbol{A}_{\boldsymbol{r}} \wedge \boldsymbol{B}_{\boldsymbol{s}}}(a) & =P_{\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}}}(a) \\ & =a\rfloor(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}})(\boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{B}_{\boldsymbol{s}})^{-1} \\ & =[(a\rfloor \boldsymbol{A}_{\boldsymbol{r}}) \boldsymbol{B}_{\boldsymbol{s}}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}})] \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} \\ & =a\rfloor \boldsymbol{A}_{\boldsymbol{r}} \boldsymbol{A}_{\boldsymbol{r}}^{-1}+(-1)^{r} \boldsymbol{A}_{\boldsymbol{r}}(a\rfloor \boldsymbol{B}_{\boldsymbol{s}}) \boldsymbol{B}_{\boldsymbol{s}}^{-1} \boldsymbol{A}_{\boldsymbol{r}}^{-1} . \end{aligned}$

basis: source / source

Conf. MathPix confidence: ■ ≥0.9 ■ 0.5–0.9 ■ <0.5 — no value

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