

正の数と負の数 [乗法と除法の混じった計算]

<演習問題>

次の計算をせよ。

(1) $(+8) \times (-2) \div (+4)$

(2) $(+4) \times (-6) \div (-12)$

(3) $(-6) \times (-2) \div (+3)$

(4) $(-9) \times (-3) \div (-3)$

(5) $(+2) \times (-2) \div (-\frac{1}{4})$

(6) $(+12) \times (-\frac{2}{3}) \div (+2)$

(7) $(-7) \times (-\frac{3}{4}) \div (-\frac{7}{4})$

(8) $(+6) \times (-\frac{2}{5}) \div (-\frac{4}{5})$

(9) $(+8) \times (+\frac{3}{2}) \div (-\frac{3}{4})$

(10) $(-\frac{5}{2}) \times (-\frac{8}{5}) \div (-\frac{4}{7})$

(11) $\frac{7}{2} \times (-\frac{9}{2}) \div \frac{7}{4}$

(12) $\frac{8}{3} \times (-\frac{7}{3}) \div (-\frac{7}{9})$

(13) $3^2 \div (-\frac{3}{2}) \div (-\frac{3}{5})$

(14) $3^2 \div (-2^3) \times (-\frac{8}{9})$

(15) $4^2 \div (-2^3) \times \frac{5}{2}$

(16) $\frac{1}{2} \div (-\frac{1}{3}) \div \frac{1}{4}$

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次の計算をせよ。

$$(1) (+8) \times (-2) \div (+4)$$

$$\begin{aligned} (+8) \times (-2) \div (+4) &= - \left(8 \times 2 \times \frac{1}{4} \right) \\ &= 4 \end{aligned}$$

$$(2) (+4) \times (-6) \div (-12)$$

$$\begin{aligned} (+4) \times (-6) \div (-12) &= + \left(4 \times 6 \times \frac{1}{12} \right) \\ &= 2 \end{aligned}$$

$$(3) (-6) \times (-2) \div (+3)$$

$$\begin{aligned} (-6) \times (-2) \div (+3) &= + \left(6 \times 2 \times \frac{1}{3} \right) \\ &= 4 \end{aligned}$$

$$(4) (-9) \times (-3) \div (-3)$$

$$\begin{aligned} (-9) \times (-3) \div (-3) &= - \left(9 \times 3 \times \frac{1}{3} \right) \\ &= -9 \end{aligned}$$

$$(5) (+2) \times (-2) \div \left(-\frac{1}{4}\right)$$

$$\begin{aligned} (+2) \times (-2) \div \left(-\frac{1}{4}\right) &= + (2 \times 2 \times 4) \\ &= 16 \end{aligned}$$

$$(6) (+12) \times \left(-\frac{2}{3}\right) \div (+2)$$

$$\begin{aligned} (+12) \times \left(-\frac{2}{3}\right) \div (+2) &= - \left(12 \times \frac{2}{3} \times \frac{1}{2} \right) \\ &= -4 \end{aligned}$$

$$(7) (-7) \times \left(-\frac{3}{4}\right) \div \left(-\frac{7}{4}\right)$$

$$\begin{aligned} (-7) \times \left(-\frac{3}{4}\right) \div \left(-\frac{7}{4}\right) &= - \left(7 \times \frac{3}{4} \times \frac{4}{7} \right) \\ &= -3 \end{aligned}$$

$$(8) (+6) \times \left(-\frac{2}{5}\right) \div \left(-\frac{4}{5}\right)$$

$$\begin{aligned} (+6) \times \left(-\frac{2}{5}\right) \div \left(-\frac{4}{5}\right) &= + \left(6 \times \frac{2}{5} \times \frac{5}{4} \right) \\ &= 3 \end{aligned}$$

$$(9) (+8) \times \left(+\frac{3}{2}\right) \div \left(-\frac{3}{4}\right)$$

$$\begin{aligned} (+8) \times \left(+\frac{3}{2}\right) \div \left(-\frac{3}{4}\right) &= - \left(8 \times \frac{3}{2} \times \frac{4}{3} \right) \\ &= -16 \end{aligned}$$

$$(10) \left(-\frac{5}{2}\right) \times \left(-\frac{8}{5}\right) \div \left(-\frac{4}{7}\right)$$

$$\begin{aligned} \left(-\frac{5}{2}\right) \times \left(-\frac{8}{5}\right) \div \left(-\frac{4}{7}\right) &= - \left(\frac{5}{2} \times \frac{8}{5} \times \frac{7}{4} \right) \\ &= -7 \end{aligned}$$

$$(11) \frac{7}{2} \times \left(-\frac{9}{2}\right) \div \frac{7}{4}$$

$$\begin{aligned} \frac{7}{2} \times \left(-\frac{9}{2}\right) \div \frac{7}{4} &= - \left(\frac{7}{2} \times \frac{9}{2} \times \frac{4}{7} \right) \\ &= -9 \end{aligned}$$

$$(12) \frac{8}{3} \times \left(-\frac{7}{3}\right) \div \left(-\frac{7}{9}\right)$$

$$\begin{aligned} \frac{8}{3} \times \left(-\frac{7}{3}\right) \div \left(-\frac{7}{9}\right) &= + \left(\frac{8}{3} \times \frac{7}{3} \times \frac{9}{7} \right) \\ &= 8 \end{aligned}$$

$$(13) 3^2 \div \left(-\frac{3}{2}\right) \div \left(-\frac{3}{5}\right)$$

$$\begin{aligned} 3^2 \div \left(-\frac{3}{2}\right) \div \left(-\frac{3}{5}\right) &= + \left(9 \times \frac{2}{3} \times \frac{5}{3} \right) \\ &= 10 \end{aligned}$$

$$(14) 3^2 \div (-2^3) \times \left(-\frac{8}{9}\right)$$

$$\begin{aligned} 3^2 \div (-2^3) \times \left(-\frac{8}{9}\right) &= + \left(9 \times \frac{1}{8} \times \frac{8}{9} \right) \\ &= 1 \end{aligned}$$

$$(15) 4^2 \div (-2^3) \times \frac{5}{2}$$

$$\begin{aligned} 4^2 \div (-2^3) \times \frac{5}{2} &= - \left(16 \times \frac{1}{8} \times \frac{5}{2} \right) \\ &= -5 \end{aligned}$$

$$(16) \frac{1}{2} \div \left(-\frac{1}{3}\right) \div \frac{1}{4}$$

$$\begin{aligned} \frac{1}{2} \div \left(-\frac{1}{3}\right) \div \frac{1}{4} &= - \left(\frac{1}{2} \times 3 \times 4 \right) \\ &= -6 \end{aligned}$$