数学

単項式と多項式
単項式の除法

1 次の計算をしなさい。

① $42x \div 6x$

② $36xy \div (-9x)$

③ $(-63x^2) \div (-7x)$

④ $32a^3 \div (-4a^2)$

⑤ $18x^2 \div \frac{6}{7}x$

⑥ $4ab \div (-\frac{2}{3}a)$

⑦ $\frac{15}{3}xy \div (-\frac{5}{6}y)$

⑧ $(-\frac{16}{3}a^2) \div (-\frac{8}{9}a)$

1 次の計算をしなさい。

① $42x \div 6x$

$= \dfrac{\overset{7}{\cancel{42}}\,\overset{1}{\cancel{x}}}{\underset{1}{\cancel{6}}\,\underset{1}{\cancel{x}}}$

$= 7$

② $36xy \div (-9x)$

$= -\dfrac{\overset{4}{\cancel{36}}\,\overset{1}{\cancel{xy}}}{\underset{1}{\cancel{9}}\,\underset{1}{\cancel{x}}}$

$= -4y$

③ $(-63x^2) \div (-7x)$

$= \dfrac{\overset{9}{\cancel{63}} \times \overset{1}{\cancel{x}} \times x}{\underset{1}{\cancel{7}}\,\underset{1}{\cancel{x}}}$

$= 9x$

④ $32a^3 \div (-4a^2)$

$= -\dfrac{\overset{8}{\cancel{32}} \times \overset{1}{\cancel{a}} \times \overset{1}{\cancel{a}} \times a}{\underset{1}{\cancel{4}} \times \underset{1}{\cancel{a}} \times \underset{1}{\cancel{a}}}$

$= -8a$

⑤ $18x^2 \div \dfrac{6}{7}x$

$= 18x^2 \times \dfrac{7}{6x}$

$= \dfrac{\overset{3}{\cancel{18}} \times 7 \times \overset{1}{\cancel{x}} \times x}{\underset{1}{\cancel{6}}\,\underset{1}{\cancel{x}}}$

$= 21x$

⑥ $4ab \div (-\dfrac{2}{3}a)$

$= 4ab \times (-\dfrac{3}{2a})$

$= -\dfrac{\overset{2}{\cancel{4}} \times 3 \times \overset{1}{\cancel{a}} \times b}{\underset{1}{\cancel{2}}\,\underset{1}{\cancel{a}}}$

$= -6b$

⑦ $\dfrac{15}{3}xy \div (-\dfrac{5}{6}y)$

$= \dfrac{15}{3}xy \times (-\dfrac{6}{5y})$

$= -\dfrac{\overset{3}{\cancel{15}} \times \overset{2}{\cancel{6}} \times x \times \overset{1}{\cancel{y}}}{\underset{1}{\cancel{3}} \times \underset{1}{\cancel{5}} \times \underset{1}{\cancel{y}}}$

$= -6x$

⑧ $(-\dfrac{16}{3}a^2) \div (-\dfrac{8}{9}a)$

$= (-\dfrac{16}{3}a^2) \times (-\dfrac{9}{8a})$

$= \dfrac{\overset{2}{\cancel{16}} \times \overset{3}{\cancel{9}} \times \overset{1}{\cancel{a}} \times a}{\underset{1}{\cancel{3}} \times \underset{1}{\cancel{8}} \times \underset{1}{\cancel{a}}}$

$= 6a$