

分母の数がひとつだけのとき→それぞれの項に、その数をかける → 解が出る

(例) $\frac{1}{4}a = 3 \quad \rightarrow \quad 4 \times \frac{1}{4}a = 3 \times 4$

$\cancel{4} \times \frac{1}{\cancel{4}}a = 3 \times 4 \quad \rightarrow \quad a = 12$

(1) $\frac{1}{5}a = 4 \quad \rightarrow$

(2) $\frac{1}{7}a = -6 \quad \rightarrow$

分母の数がひとつだけのとき→それぞれの項に、その数をかける → 生き残り係数を割る→解が出る

(例) $\frac{3}{5}a = 6 \quad \rightarrow \quad 5 \times \frac{3}{5}a = 6 \times 5$

$\cancel{5} \times \frac{3}{\cancel{5}}a = 6 \times 5 \quad \rightarrow \quad 3a = 30 \quad \frac{3a}{3} = \frac{30}{3} \quad a = 10$

(3) $\frac{3}{4}a = 12 \quad \rightarrow$

(4) $\frac{5}{6}a = 10 \quad \rightarrow$

(5) $\frac{2}{3}a = -4 \quad \rightarrow$

(6) $\frac{4}{5}a = 4 \quad \rightarrow$

分母の数がひとつだけのとき→それぞれの項に、その数をかける → 解が出る

$$\begin{aligned} \text{(例)} \quad \frac{1}{4}a = 3 & \rightarrow 4 \times \frac{1}{4}a = 3 \times 4 \\ & \quad \quad \quad \cancel{4} \times \frac{1}{\cancel{4}}a = 3 \times 4 \quad \rightarrow a = 12 \end{aligned}$$

$$\begin{aligned} \text{(1)} \quad \frac{1}{5}a = 4 & \rightarrow 5 \times \frac{1}{5}a = 4 \times 5 \\ & \quad \quad \quad \cancel{5} \times \frac{1}{\cancel{5}}a = 4 \times 5 \quad \rightarrow a = 20 \end{aligned}$$

$$\begin{aligned} \text{(2)} \quad \frac{1}{7}a = -6 & \rightarrow 7 \times \frac{1}{7}a = -6 \times 7 \\ & \quad \quad \quad \cancel{7} \times \frac{1}{\cancel{7}}a = -6 \times 7 \quad \rightarrow a = -42 \end{aligned}$$

分母の数がひとつだけのとき→それぞれの項に、その数をかける → 生き残り係数を割る→解が出る

$$\begin{aligned} \text{(例)} \quad \frac{3}{5}a = 6 & \rightarrow 5 \times \frac{3}{5}a = 6 \times 5 \\ & \quad \quad \quad \cancel{5} \times \frac{3}{\cancel{5}}a = 6 \times 5 \quad \rightarrow 3a=30 \quad \frac{3a}{3} = \frac{30}{3} \quad a=10 \end{aligned}$$

$$\begin{aligned} \text{(3)} \quad \frac{3}{4}a = 12 & \rightarrow 4 \times \frac{3}{4}a = 12 \times 4 \\ & \quad \quad \quad \cancel{4} \times \frac{3}{\cancel{4}}a = 12 \times 4 \quad \rightarrow 3a=48 \quad \frac{3a}{3} = \frac{48}{3} \quad a=16 \end{aligned}$$

$$\begin{aligned} \text{(4)} \quad \frac{5}{6}a = 10 & \rightarrow 6 \times \frac{5}{6}a = 10 \times 6 \\ & \quad \quad \quad \cancel{6} \times \frac{5}{\cancel{6}}a = 10 \times 6 \quad \rightarrow 5a=60 \quad \frac{5a}{5} = \frac{60}{5} \quad a=12 \end{aligned}$$

$$\begin{aligned} \text{(5)} \quad \frac{2}{3}a = -4 & \rightarrow 3 \times \frac{2}{3}a = -4 \times 3 \\ & \quad \quad \quad \cancel{3} \times \frac{2}{\cancel{3}}a = -4 \times 3 \quad \rightarrow 2a=-12 \quad \frac{2a}{2} = \frac{-12}{2} \quad a=-6 \end{aligned}$$

$$\begin{aligned} \text{(6)} \quad \frac{4}{5}a = 4 & \rightarrow 5 \times \frac{4}{5}a = 4 \times 5 \\ & \quad \quad \quad \cancel{5} \times \frac{4}{\cancel{5}}a = 4 \times 5 \quad \rightarrow 4a=20 \quad \frac{4a}{4} = \frac{20}{4} \quad a=5 \end{aligned}$$

ひとつひとつの項に分かれている場合 -ひとつひとつの項で、かけ算をする

$$(例) \frac{1}{4}a + 3 = \frac{2}{3}a - 7 \rightarrow \frac{1}{4}a + 3 = \frac{2}{3}a - 7$$

$$12 \times \frac{1}{4}a + 3 \times 12 = 12 \times \frac{2}{3}a - 7 \times 12$$

$$\cancel{12} \times \frac{1}{\cancel{4}}a + 3 \times 12 = \cancel{12} \times \frac{2}{\cancel{3}}a - 7 \times 12$$

$$3a + 36 = 8a - 84$$

$$3a - 8a = -36 - 84$$

$$-5a = -120$$

$$a = 24$$

$$(1) \frac{1}{3}a - 3 = \frac{5}{6}a + 1 \rightarrow$$

$$(2) \frac{2}{5}a + 1 = \frac{1}{3}a - 2 \rightarrow$$

ひとつひとつの項に分かれている場合 -ひとつひとつの項で、かけ算をす

$$(例) \frac{1}{4}a + 3 = \frac{2}{3}a - 7 \rightarrow \frac{1}{4}a + 3 = \frac{2}{3}a - 7$$

$$12 \times \frac{1}{4}a + 3 \times 12 = 12 \times \frac{2}{3}a - 7 \times 12$$

$$\cancel{12} \times \frac{1}{\cancel{4}}a + 3 \times 12 = \cancel{12} \times \frac{2}{\cancel{3}}a - 7 \times 12$$

$$3a + 36 = 8a - 84$$

$$3a - 8a = -36 - 84$$

$$-5a = -120$$

$$a = 24$$

$$(1) \frac{1}{3}a - 3 = \frac{5}{6}a + 1 \rightarrow \frac{1}{3}a - 3 = \frac{5}{6}a + 1$$

$$6 \times \frac{1}{3}a - 3 \times 6 = 6 \times \frac{5}{6}a + 1 \times 6$$

$$\cancel{6} \times \frac{1}{\cancel{3}}a - 3 \times 6 = \cancel{6} \times \frac{5}{\cancel{6}}a + 1 \times 6$$

$$2a - 18 = 5a + 6$$

$$2a - 5a = 6 + 18$$

$$-3a = 24$$

$$a = -8$$

$$(2) \frac{2}{5}a + 1 = \frac{1}{3}a - 2 \rightarrow \frac{2}{5}a + 1 = \frac{1}{3}a - 2$$

$$\cancel{15} \times \frac{2}{5}a + 1 \times 15 = \cancel{15} \times \frac{1}{3}a - 2 \times 15$$

$$6a + 15 = 5a - 30$$

$$6a - 5a = -30 - 15$$

$$a = -45$$

注意点…分数になっている項だけにかけて、数字だけの項にかけ忘れることが、ときどきあります。

分子が長いとき → 分母を先頭に出すと、計算しやすくなる

$$(例) \frac{3a+1}{4} + \frac{2a+3}{5} = 2 \quad \rightarrow \quad \frac{3a+1}{4} + \frac{2a+3}{5} = 2$$

分子はカッコで守る →
分母を指先でつまんで先頭に →
引きずり出す気持ちで

$$\frac{1}{4}(3a+1) + \frac{1}{5}(2a+3) = 2$$

$$20 \times \frac{1}{4}(3a+1) + 20 \times \frac{1}{5}(2a+3) = 2 \times 20$$

$$\cancel{20} \times \frac{1}{4}(3a+1) + \cancel{20} \times \frac{1}{5}(2a+3) = 40$$

$$5(3a+1) + 4(2a+3) = 40$$

$$a = 1$$

$$(1) \frac{2a+1}{3} = \frac{a-7}{6} \quad \rightarrow$$

$$(2) \frac{2a+5}{3} - \frac{4a+2}{5} = 1 \quad \rightarrow$$

分子が長いとき → 分母を先頭に出すと、計算しやすくなる

$$(例) \frac{3a+1}{4} + \frac{2a+3}{5} = 2 \quad \rightarrow \quad \frac{3a+1}{4} + \frac{2a+3}{5} = 2$$

分子はカッコで守る →
分母を指先でつまんで先頭に →
引きずり出す気持ちで

$$\frac{1}{4} (3a+1) + \frac{1}{5} (2a+3) = 2$$

$$20 \times \frac{1}{4} (3a+1) + 20 \times \frac{1}{5} (2a+3) = 2 \times 20$$

$$\cancel{20} \times \frac{1}{4} (3a+1) + \cancel{20} \times \frac{1}{5} (2a+3) = 40$$

$$5(3a+1) + 4(2a+3) = 40$$

$$a = 1$$

$$(1) \frac{2a+1}{3} = \frac{a-7}{6} \quad \rightarrow \quad \frac{2a+1}{3} = \frac{a-7}{6}$$

分子はカッコで守る →

$$\frac{1}{3} (2a+1) = \frac{1}{6} (a-7)$$

$$6 \times \frac{1}{3} (2a+1) = 6 \times \frac{1}{6} (a-7)$$

$$\cancel{6} \times \frac{1}{3} (2a+1) = \cancel{6} \times \frac{1}{6} (a-7)$$

$$2(2a+1) = a-7$$

$$a = -3$$

$$(2) \frac{2a+5}{3} - \frac{4a+2}{5} = 1 \quad \rightarrow \quad \frac{2a+5}{3} - \frac{4a+2}{5} = 1$$

分子はカッコで守る →

$$\frac{1}{3} (2a+5) - \frac{1}{5} (4a+2) = 1$$

$$15 \times \frac{1}{3} (2a+5) - 15 \times \frac{1}{5} (4a+2) = 1 \times 15$$

$$\cancel{15} \times \frac{1}{3} (2a+5) - \cancel{15} \times \frac{1}{5} (4a+2) = 1 \times 15$$

$$5(2a+5) - 3(4a+2) = 15$$

$$10a+25-12a-6=15$$

$$-2a=-4$$

$$a=2$$