

高校入試計算練習 1、2年生 標準

NO.2

名前	
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／10 点

1 次の計算をなさい。

(1) $-4^2 - (-3)^2$ (2) $\frac{4}{5} + \frac{2}{3} \times \left(-\frac{3}{5}\right)$

(3) $6 \times (-1)^3 - (-4)^3 \div 2$

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

(5) $\frac{1}{4}(x + 3y) + \frac{1}{2}(x - y)$

(6) $\frac{x-1}{2} - \frac{7x-4}{8}$

(7) $2a^2 \div \left(-\frac{1}{3}ab^2\right) \times \frac{1}{6}ab$

2 次の方程式を解きなさい

(1) $\frac{x-2}{2} = \frac{2x+1}{3}$

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

(3)
$$\begin{cases} \frac{2}{3}x + \frac{1}{2}y = 1 \\ 2x - y = 8 \end{cases}$$

解答

1

$$(1) -16 - 9 = -25$$

$$(2) \frac{4}{5} + \left(-\frac{2}{5}\right) = \frac{2}{5}$$

$$(3) 6 \times (-1) - (-64) \div 2 = -6 - (-32) = 26$$

$$(4) 4 + \frac{8}{9} \times \left(-\frac{3}{2}\right) = 4 - \frac{4}{3} = \frac{12}{3} - \frac{4}{3} = \frac{8}{3}$$

$$(5) \frac{1}{4}x + \frac{3}{4}y + \frac{1}{2}x - \frac{1}{2}y$$

$$= \frac{1}{4}x + \frac{2}{4}x + \frac{3}{4}y - \frac{2}{4}y = \frac{3}{4}x + \frac{1}{4}y$$

$$(6) \frac{4(x-1)}{8} - \frac{7x-4}{8}$$

$$= \frac{4x-4-7x+4}{8} = -\frac{3}{8}x$$

$$(7) 2a^2 \times \left(\frac{-3}{ab^2}\right) \times \frac{ab}{6}$$

$$= -\frac{b^2}{a}$$

2

$$(1) \frac{x-2}{2} = \frac{2x+1}{3} \quad \text{両辺に6をかける}$$

$$3(x-2) = 2(2x+1)$$

$$3x-6 = 4x+2$$

$$-x = 8$$

$$x = -8$$

$$(2) 2x - \frac{1}{3} = \frac{3x+2}{5} \quad \text{両辺に15をかける}$$

$$15\left(2x - \frac{1}{3}\right) = 3(3x+2)$$

$$30x - 5 = 9x + 6$$

$$21x = 11$$

$$x = \frac{11}{21}$$

$$(3) \quad \left\{ \begin{array}{l} \frac{2}{3}x + \frac{1}{2}y = 1 \quad \dots① \\ 2x - y = 8 \quad \dots② \end{array} \right.$$

$$① \times 6 \quad 4x + 3y = 6 \quad \dots③$$

$$③ + ② \times 3$$

$$\begin{array}{r} 4x + 3y = 6 \\ +) 6x - 3y = 24 \\ \hline 10x = 30 \end{array}$$

$$x = 3$$

$x = 3$ を②に代入して,

$$6 - y = 8$$

$$y = -2$$

$$(x, y) = (3, -2)$$