

高校入試対策 計算総合

NO.8

名前	
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9 点

1 次の計算をなさい。

① $(-3)^2 \div \frac{1}{6}$

② $5 - 3 \times (-2)^2$

③ $\frac{3x + y}{2} - \frac{2x - 3y}{3}$

④ $6ab \div (-9a^2b^2) \times 3a^2b$

⑤ $\sqrt{24} - \sqrt{6} + \sqrt{54}$

⑥ $(2x - 3)^2 - 4x(x - 1)$

2 次の方程式を解きなさい

① $6x - 26 = 3x - 8$

②
$$\begin{cases} 5x + 2y = 3 \\ 2x + 3y = 10 \end{cases}$$

③ $2x^2 + 7x + 1 = 0$

解答

1

① $9 \times 6 = 54$

② $5 - 3 \times 4$
 $= 5 - 12 = -7$

③
$$\frac{3(3x + y) - 2(2x - 3y)}{6}$$

$$= \frac{9x + 3y - 4x + 6y}{6}$$

$$= \frac{5x + 9y}{6}$$

④
$$- \frac{6ab \times 3a^2b}{9a^2b^2} = -2a$$

⑤ $2\sqrt{6} - \sqrt{6} + 3\sqrt{6}$
 $= 4\sqrt{6}$

⑥ $4x^2 - 12x + 9 - 4x^2 + 4x$
 $= -8x + 9$

2

① $3x = 18$
 $x = 6$

②
$$\begin{cases} 5x + 2y = 3 & \dots① \\ 2x + 3y = 10 & \dots② \end{cases}$$

① $\times 3$ - ② $\times 2$ で,
 $15x + 6y = 9$
 $-) 4x + 6y = 20$

 $11x = -11$
 $x = -1$

$x = -1$ を①に代入して,
 $-5 + 2y = 3$
 $2y = 8$
 $y = 4$

$$\underline{\underline{x = -1 \quad y = 4}}$$

③ $x = \frac{-7 \pm \sqrt{49 - 4 \times 2}}{4}$ $x = \frac{-7 \pm \sqrt{41}}{4}$
