

中2の数学まとめ 基本2

名前

／10 点

1. 次の計算をなさい。

① $2(x - 2y) - 3(x - 3y)$

② $-(2x - 4y) + 5(x - 2y)$

③ $4a^2b \times (-6ab)$ ④ $8ab \div (-4a^2b)$

2. 次の連立方程式を解きなさい。

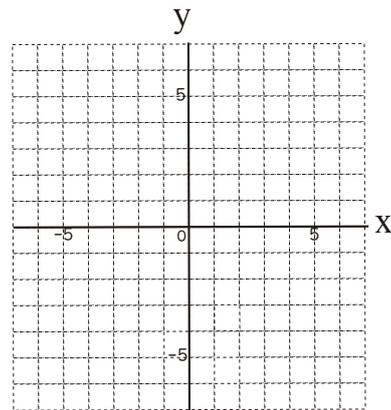
①
$$\begin{cases} 4x - y = -8 \\ 7x + 3y = 5 \end{cases}$$

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

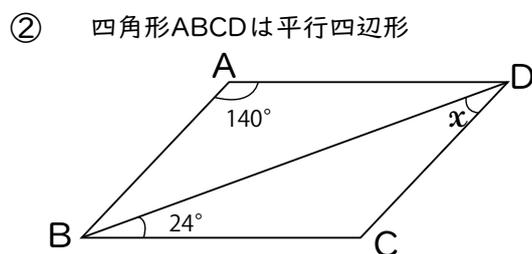
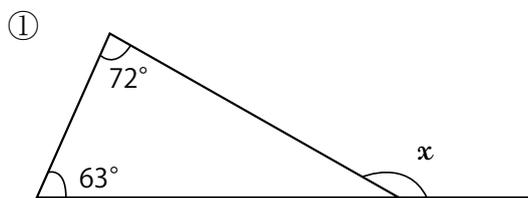
3. 右の座標に次のグラフを書きなさい。

① $y = 2x + 3$

② $y = -3x - 4$



4. 次の図の $\angle x$ の大きさを求めなさい。



5. 赤2個、白3個、青2個の玉が入っている袋から、1個の玉を取り出す時、それが白玉である確率を求めなさい。

解答

1.

$$\begin{aligned} \textcircled{1} \quad & 2(x - 2y) - 3(x - 3y) \\ &= 2x - 4y - 3x + 9y \\ &= -x + 5y \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & -(2x - 4y) + 5(x - 2y) \\ &= -2x + 4y + 5x - 10y \\ &= 3x - 6y \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & 4a^2b \times (-6ab) \\ &= -24a^3b^2 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & 8ab \div (-4a^2b) \\ &= -\frac{8ab}{4a^2b} = -\frac{2}{a} \end{aligned}$$

$$2. \quad \begin{cases} 4x - y = -8 & \dots\textcircled{1} \\ 7x + 3y = 5 & \dots\textcircled{2} \end{cases}$$

$$\begin{cases} y = -3x + 2 & \dots\textcircled{1} \\ x - 2y = 10 & \dots\textcircled{2} \end{cases}$$

①×3+②

$$\begin{array}{r} 12x - 3y = -24 \\ +) 7x + 3y = 5 \\ \hline 19x = -19 \\ x = -1 \end{array}$$

$x = -1$ を ②に代入

$$\begin{aligned} -7 + 3y &= 5 \\ 3y &= 12 \\ y &= 4 \end{aligned}$$

$$(x, y) = (-1, 4)$$

① を②に代入

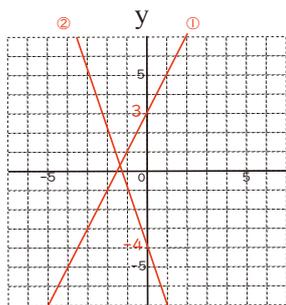
$$\begin{aligned} x - 2(-3x + 2) &= 10 \\ x + 6x - 4 &= 10 \\ 7x &= 14 \\ x &= 2 \end{aligned}$$

$x = 2$ を ①に代入

$$\begin{aligned} y &= -6 + 2 \\ &= -4 \end{aligned}$$

$$(x, y) = (2, -4)$$

3.



$$\begin{aligned} 4. \quad \textcircled{1} \quad & 72^\circ + 63^\circ \\ &= \underline{135^\circ} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & 180^\circ - (140^\circ + 24^\circ) \\ &= \underline{16^\circ} \end{aligned}$$

$$5. \quad \frac{3}{7}$$