

$$\square (1) 8x - 4x = 4x //$$

$$(2) 5 + 3 \times (-2) = 5 - 6 \\ = -1 //$$

$$(3) \sqrt{4} - \sqrt{6} = 2\sqrt{6} - \sqrt{6} \\ = \sqrt{6} //$$

$$(4) x = -4 + \sqrt{2} \text{ より}$$

$$x + 4 = \sqrt{2}$$

両辺 2 乗して

$$(x + 4)^2 = (\sqrt{2})^2$$

$$x^2 + 8x + 16 = 2$$

$$\therefore 2 //$$

$$(5) 5x^2 - 3x - 1 = 0$$

解の公式より

$$x = \frac{-(-3) \pm \sqrt{(-3)^2 - 4 \times 5 \times (-1)}}{2 \times 5}$$

$$x = \frac{3 \pm \sqrt{9 + 20}}{10}$$

$$x = \frac{3 \pm \sqrt{29}}{10} //$$

$$(6) \begin{cases} x + 3y = 4 & \text{--- ①} \\ 2x + 5y = 6 & \text{--- ②} \end{cases}$$

$$\text{①} \times 2 - \text{②}$$

$$2x + 6y = 8$$

$$\underline{-) 2x + 5y = 6}$$

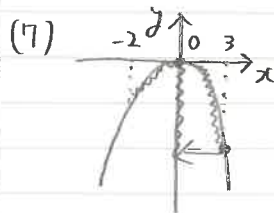
$$y = 2$$

= ね ① に代入して

$$x + 3 \times (2) = 4$$

$$x + 6 = 4$$

$$x = -2 \quad \therefore (x, y) = (-2, 2) //$$



$$x = 0 \text{ とき } y = -(0)^2 \\ = 0$$

$$x = 3 \text{ とき } y = -(3)^2 \\ = -9$$

$$-9 \leq y \leq 0 //$$

(8) 箱の中の黒玉の個数を x 個とす。

$$480 : x = 56 : 35$$

$$480 : x = 8 : 5$$

$$8x = 480 \times 5$$

$$x = 60 \times 5$$

$$x = 300$$

\therefore およそ 300 個

$$\begin{aligned} (9) \widehat{AB} \text{ の円周角 } \angle ADB &= \angle AOB \times \frac{1}{2} \\ &= 66^\circ \times \frac{1}{2} \\ &= 33^\circ \end{aligned}$$

$$\begin{aligned} \widehat{AD} \text{ の中心角 } \angle AOD &= 180^\circ - \angle AOB \\ &= 180^\circ - 66^\circ \\ &= 114^\circ \end{aligned}$$

$$\begin{aligned} \widehat{AD} \text{ の円周角 } \angle ACD &= \angle AOD \times \frac{1}{2} \\ &= 114^\circ \times \frac{1}{2} \\ &= 57^\circ \end{aligned}$$

AC = AD より $\triangle ACD$ は二等辺三角形
よって $\angle ACD = \angle ADC = 57^\circ$

$$\begin{aligned} \text{以上より } \angle CDB &= \angle ADC - \angle ADB \\ &= 57^\circ - 33^\circ \\ &= 24^\circ \end{aligned}$$

$$\therefore \angle x = 24^\circ //$$