

(3) $y = -a(x-5)^2 - 8$ に(7,0)、つまり $x=7, y=0$ を代入!

$$\overset{0}{\cancel{y}} = -a(\overset{7}{\cancel{x}} - 5)^2 - 8$$

$$0 = -a(2)^2 - 8$$

$$0 = -4a \text{ (8)}$$

$$8 = -4a$$

$$-2 = a$$

(4) $y = -(x-2)^2 + k$ に原点、つまり $x=0, y=0$ を代入!

$$\overset{0}{\cancel{y}} = -(\overset{0}{\cancel{x}} - 2)^2 + k$$

$$0 = -(-2)^2 + k$$

$$0 = -4 + k$$

$$4 = k$$

(5) $y = -3(x+3)^2 + k$ に原点、つまり $x=0, y=0$ を代入!

$$\overset{0}{\cancel{y}} = -3(\overset{0}{\cancel{x}} + 3)^2 + k$$

$$0 = -3(3)^2 + k$$

$$0 = -27 + k$$

$$27 = k$$