

① $y = -|2x+4| + 1$

parent: $y = |x|$

REWRITE: $y = -|2(x+2)| + 1$

- reflection over x-axis

- $2 \rightarrow \frac{1}{2} < 1 \rightarrow$ horizontal compression by $\frac{1}{2}$

- left 2

- up 1

② $y = \sqrt{-x+2} - 3$

REWRITE: $y = \sqrt{-(x-2)} - 3$ parent: $y = \sqrt{x}$

reflection over y-axis

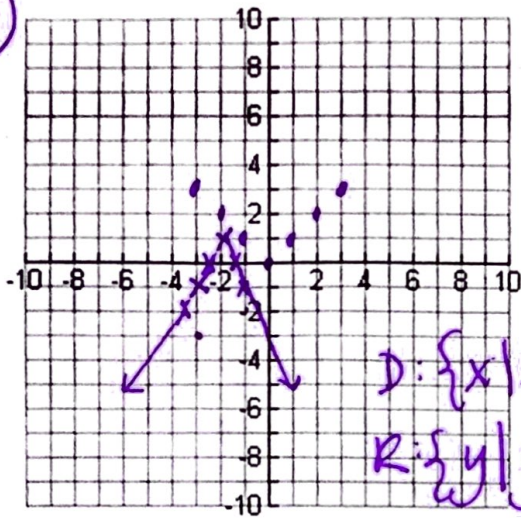
right 2

down 3

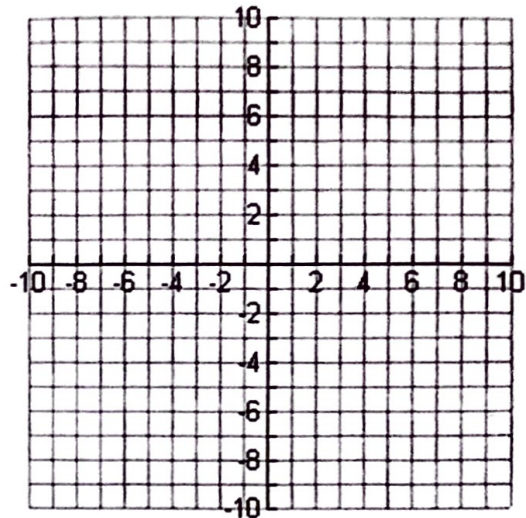
③ $y = (2x-8)^2 - 2$ $y = x^2$

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

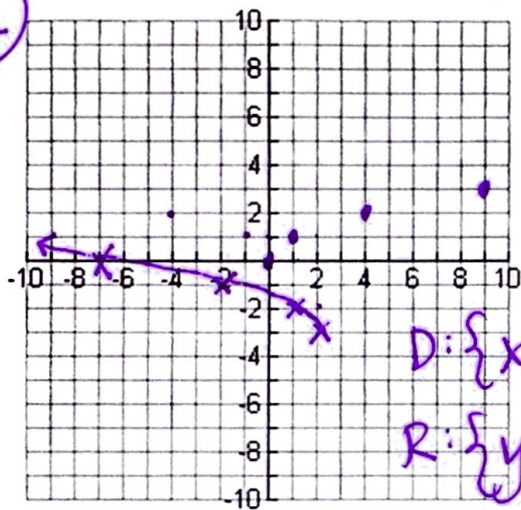
①



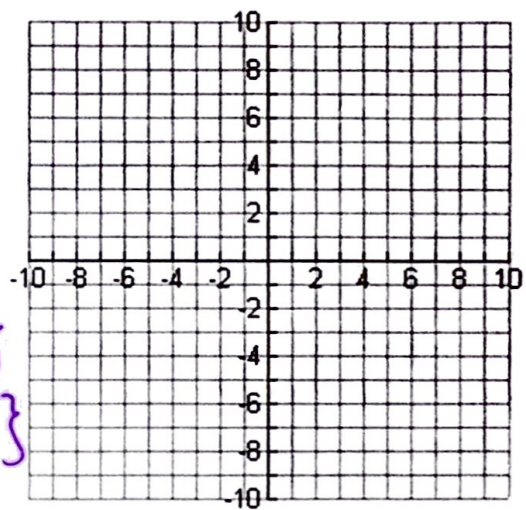
$$D: \{x \mid x \in \mathbb{R}\}$$
$$R: \{y \mid y \leq 1\}$$



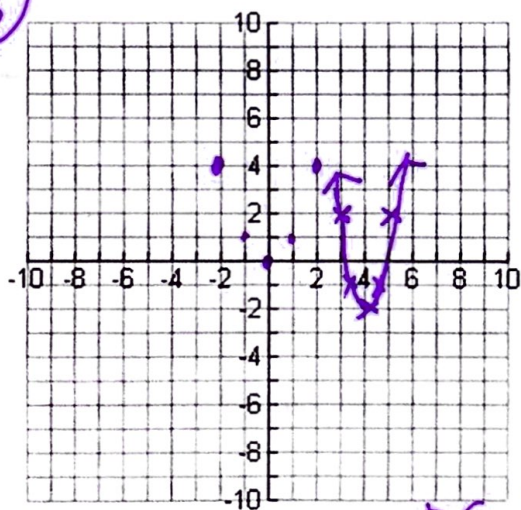
②



$$D: \{x \mid x \leq 2\}$$
$$R: \{y \mid y \geq -3\}$$



③



$$D: \{x \mid x \in \mathbb{R}\}$$
$$R: \{y \mid y \geq -2\}$$

