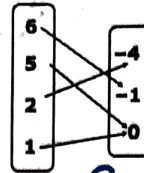The **domain** of a relation is the set of first coordinates (or x-values) of the ordered pairs.

The **range** of a relation is the set of second coordinates (or y-values) of the ordered pairs.
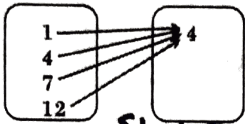
Give the domain and range.

D: $\{1,2,5,6\}$

R: $\{\cancel{2\,2p+} -4, -1, 0\}$

x	y
1	24
2	9
3	-6
4	-21
5	-36

Give the domain and range for each.
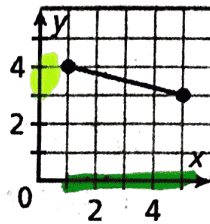
D: $\{1,2,3,4,5\}$

R: $\{-36,-21,-6,9,24\}$

D: $\{1,4,7,12\}$

R: $\{4\}$

(1, 5); (8, 19); (4, 11); (-8, -13), (1, 5)

D: $\{-8, 1, 4, 8\}$
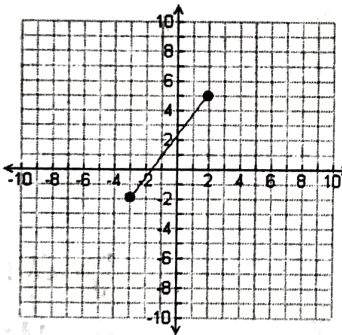
R: $\{-13, 5, 11, 19\}$
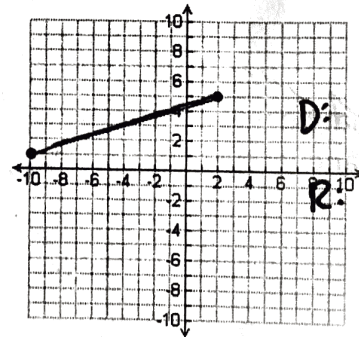
What do you think the domain and range is here?
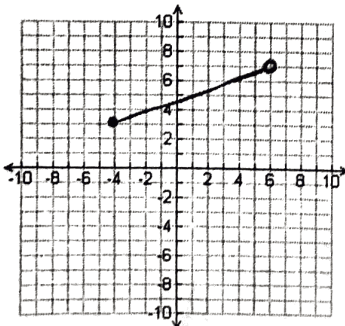

D: $1 \le x \le 5$

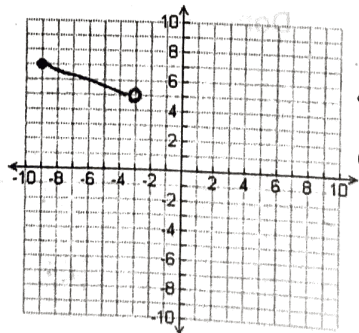R: $3 \le y \le 4$

D: $-3 \le x \le 2$

R: $-2 \le y \le 5$

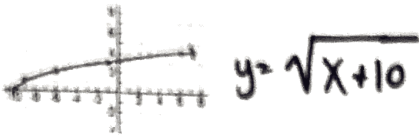D: $-10 \le x \le 2$

R: $1 \le y \le 5$

D: $-4 \le x < 6$

R: $3 \le y < 7$

D: $-9 \le x < 3$

R: $5 < y \le 7$

$y = \sqrt{x+10}$

D: $x \geq -10$
R: $y \geq 0$

$y = x^2 - 3$
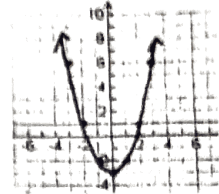
D: $-\infty < x < \infty$
all real #s
R: $y \geq -3$

Domain & Range?
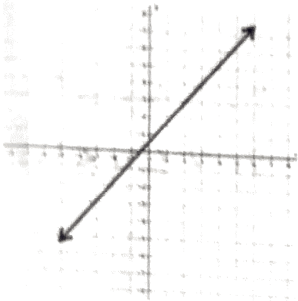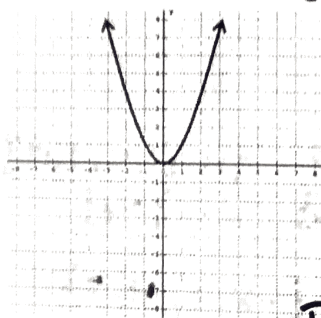
Why does the domain and range make sense given that the equation for this graph is y=x ?

D: all real #s
R: all real #s

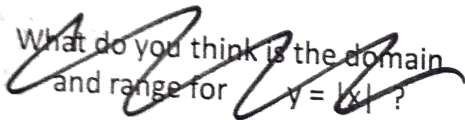$-\infty < x < \infty$
$-\infty < y < \infty$

Domain & Range?

Why does the domain and range make sense given that the equation for this graph is y=x² ?
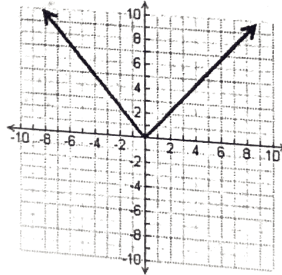
D: all real #s
R: $y \geq 0$

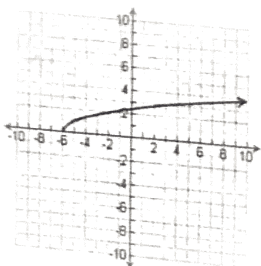What do you think is the domain and range for $y = |x|$?

Domain & Range?

Why does the domain and range make sense given that the equation for this graph is y=|x| ?

D: all real #s
R: $y \geq 0$

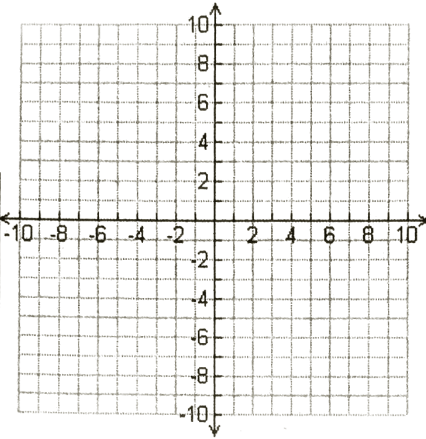## Domain & Range?

$y = \sqrt{x+6}$

D: $x \geq -6$
R: $y \geq 0$
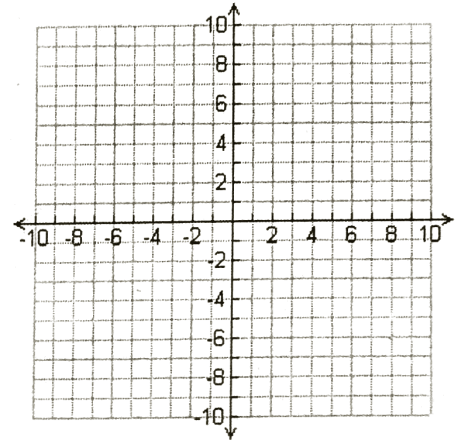
Key Features Homework:
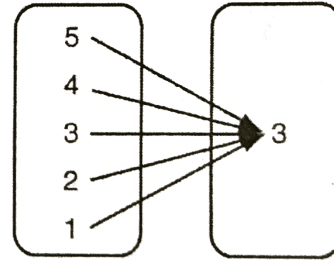### Domain and Range

Graph:
$f(x) = \frac{1}{2}x^2$

x	f(x)

Graph: $f(x) = -2|x - 3|$

x	g(x)

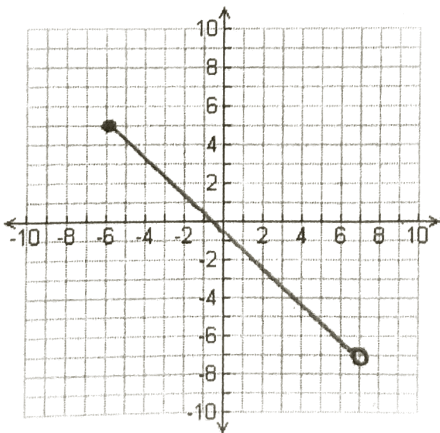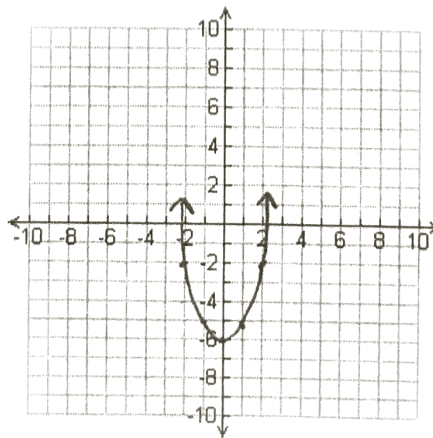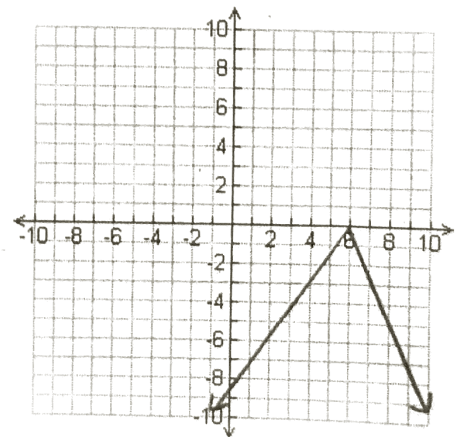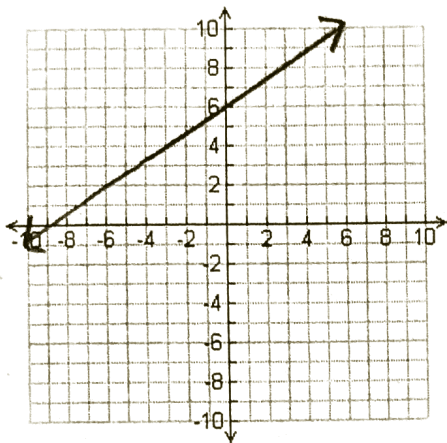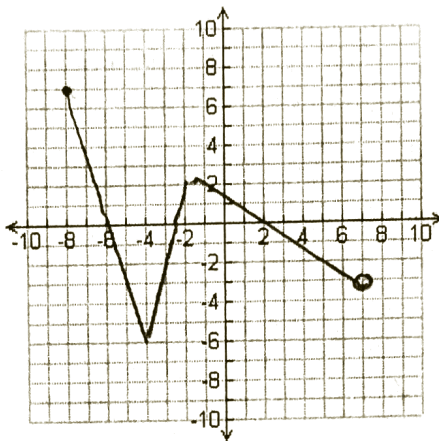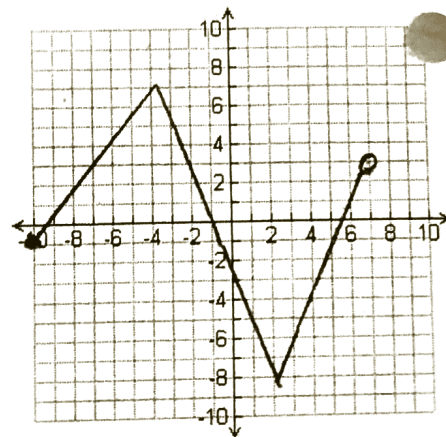Find g(3)

Find x when g(x) = 3

g(x)

Domain:

Range:

Domain:

Range:

Domain:

Range:

Domain:

Range:

Domain:

Range:

Domain:

Range:

Domain:

Range: