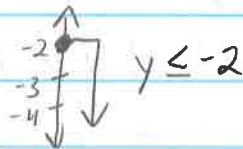
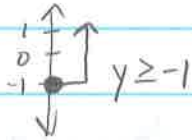
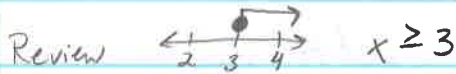


3/26 Algebra - Downing

Go over HW



Review Domain and Range:

Domain: All possible x -values

Range: All possible y -values

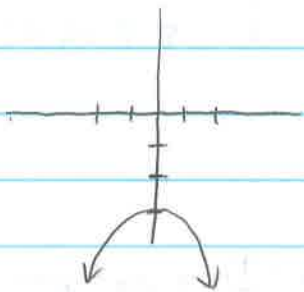
Domain and Range of Quadratic Functions

Domain: x is all real numbers $\{x \in \mathbb{R}\}$

Range: If it opens up then $y \geq$ (y of vertex)

If it opens down then $y \leq$ (y of vertex)

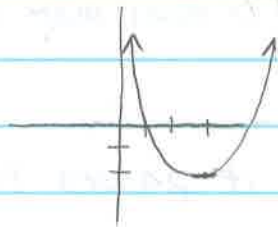
Ex)



Domain: x is all real numbers or $x \in \mathbb{R}$

Range: $y \leq -3$

Ex)



Domain: x is all real numbers or $x \in \mathbb{R}$

Range: $y \geq -2$

★ More examples on worksheet

Review of Functions -

- Every input (x) has exactly one output (y)
- x 's don't repeat
- Pass the vertical line test

Ex)

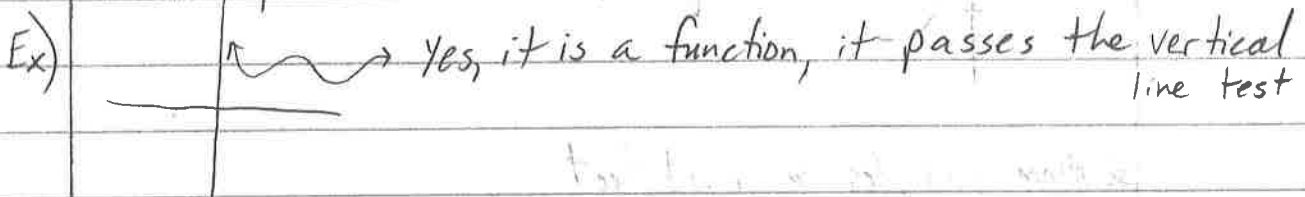
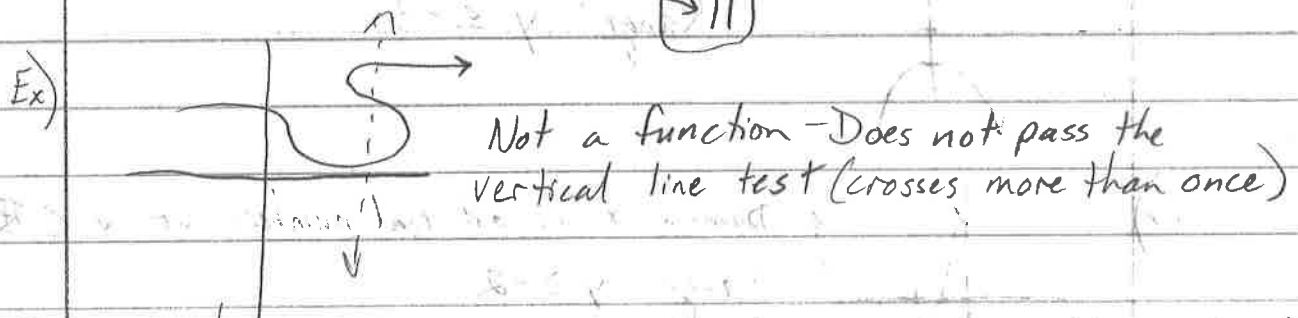
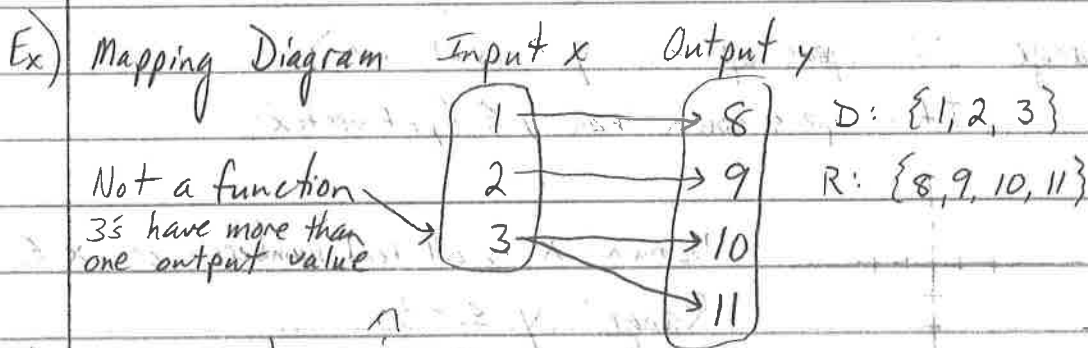
input (x)	0	1	2	3	4
output (y)	8	8	8	8	8

yes, this is a function
 x 's don't repeat
 $D: \{0, 1, 2, 3, 4\}$
 $R: \{8\}$

Ex)

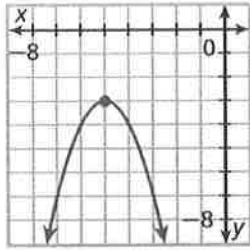
input (x)	8	8	8	8	8
output (y)	0	1	2	3	4

Not a function, x 's repeat
 $D: \{8\}$
 $R: \{0, 1, 2, 3, 4\}$



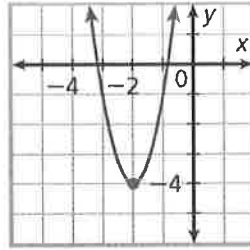
Notebook Quiz
No HW

Find the domain and range.



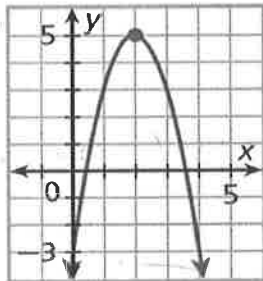
$$D: x \in \mathbb{R}$$

$$R: y \leq -3$$



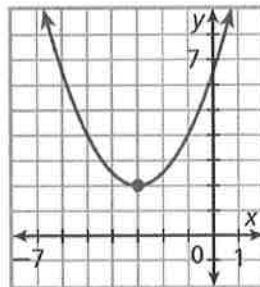
$$D: x \in \mathbb{R}$$

$$R: y \geq -4$$



$$D: x \in \mathbb{R}$$

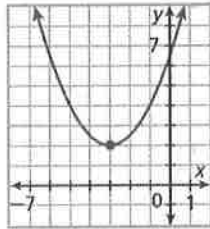
$$R: y \leq 5$$



$$D: x \in \mathbb{R}$$

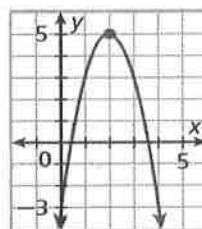
$$R: y \geq 2$$

Find the domain and range.



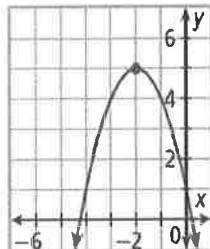
$$D: x \in \mathbb{R}$$

$$R: y \geq 2$$



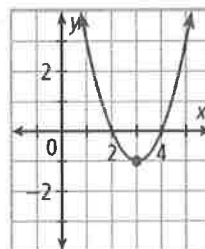
$$D: x \in \mathbb{R}$$

$$R: y \leq 5$$



$$D: x \in \mathbb{R}$$

$$R: y \leq 5$$



$$D: x \in \mathbb{R}$$

$$R: y \geq -1$$