

Do Now: The piece wise linear function $f(x)$ is shown graphed below.

1. Find the slope of each of the line segments:

AB:

BC:

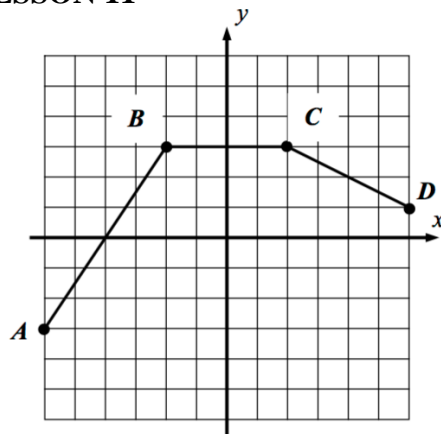
CD:

2. Evaluate:

a) $f(-2)$

b) $f(4)$

c) $f(x) = -3$



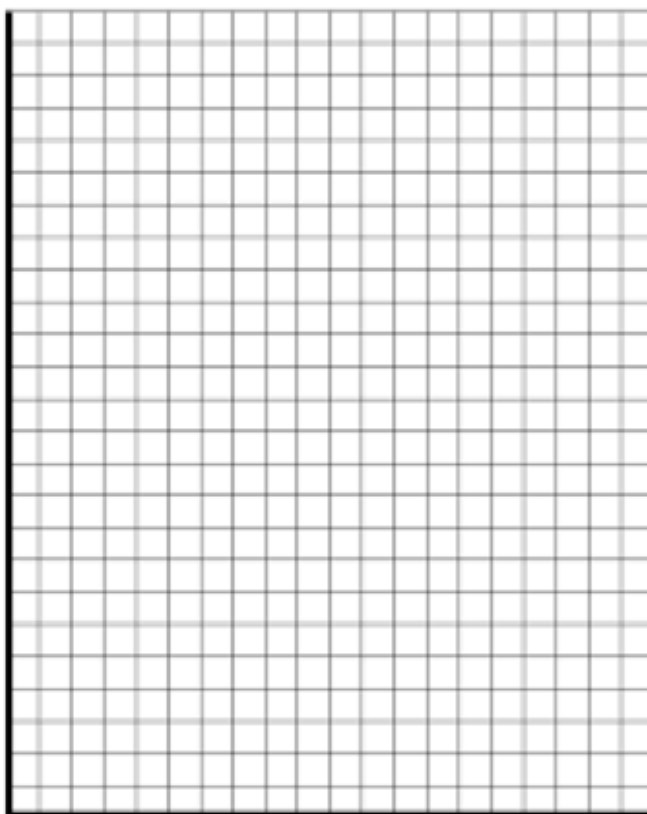
AIM: How Do We Graph Piecewise Functions? (Day 2)

3. On the following graph, complete the tables and graph the following piecewise function

$$f(x) = \begin{cases} 3x - 5 & \text{if } x > 4 \\ x^2 & \text{if } 0 < x \leq 4 \end{cases}$$

x	y

x	y



a) What is the domain in interval notation?

b) What is the range in interval notation?

a) What is the domain in set builder notation?

d) What is the range in set builder notation?

4. Write the equation for each function whose graph is shown below:

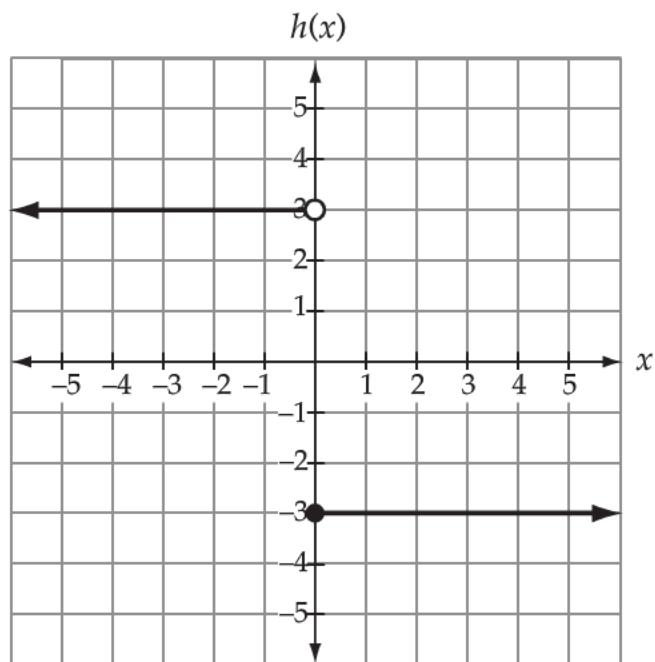
a) Equation:

b) What is the domain in interval notation?

c) What is the range in interval notation?

d) What is the domain in set builder notation?

e) What is the range in set builder notation?



5. Write the equation for each function whose graph is shown below:

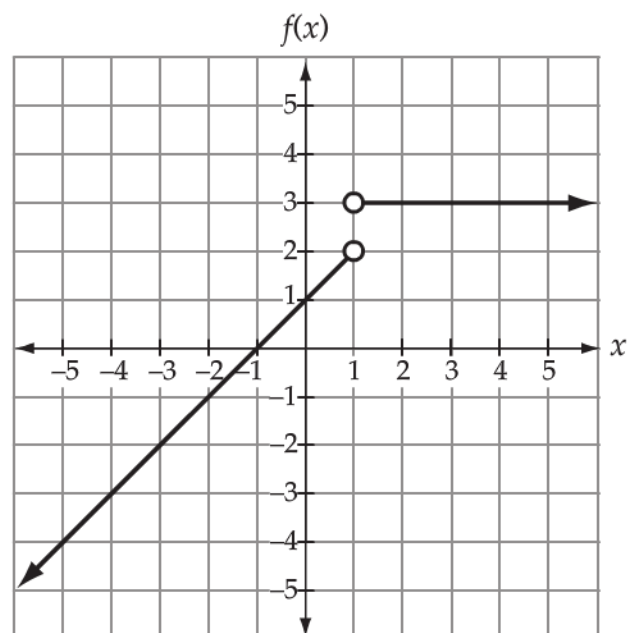
a. Equation:

b. What is the domain in interval notation?

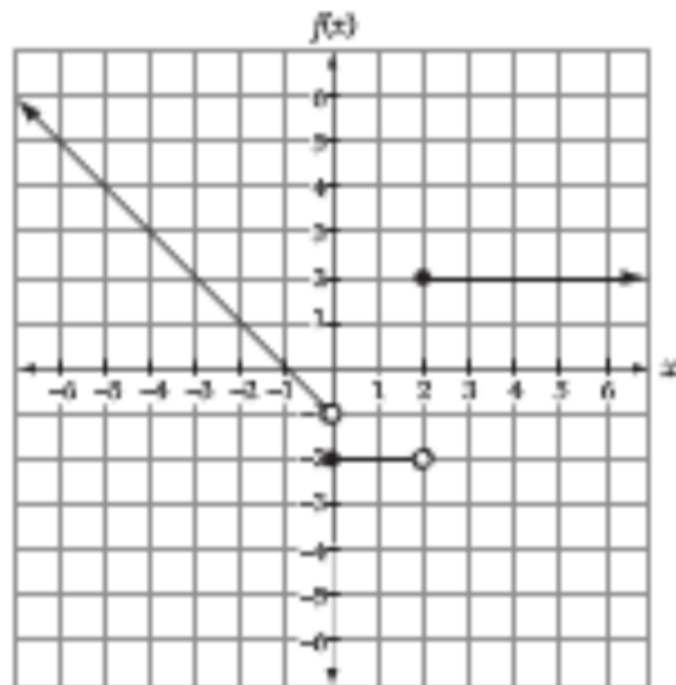
c. What is the range in interval notation?

d. What is the domain in set builder notation?

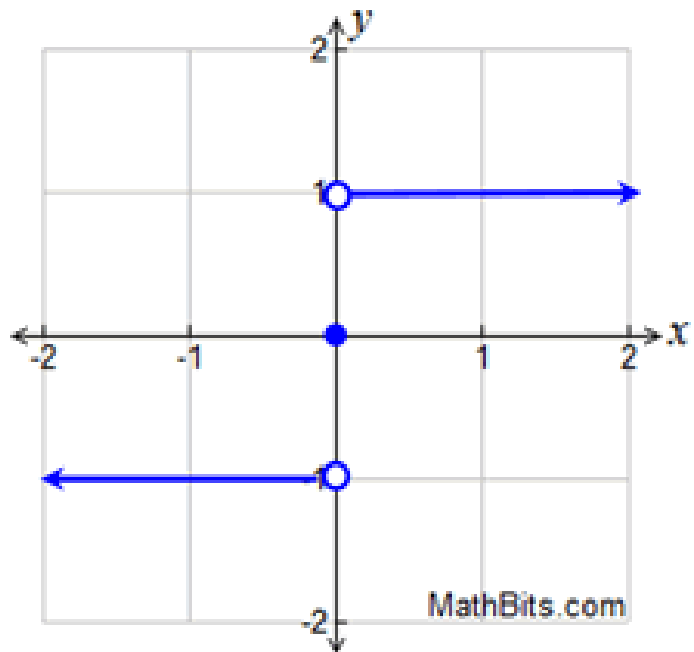
e. What is the range in set builder notation?



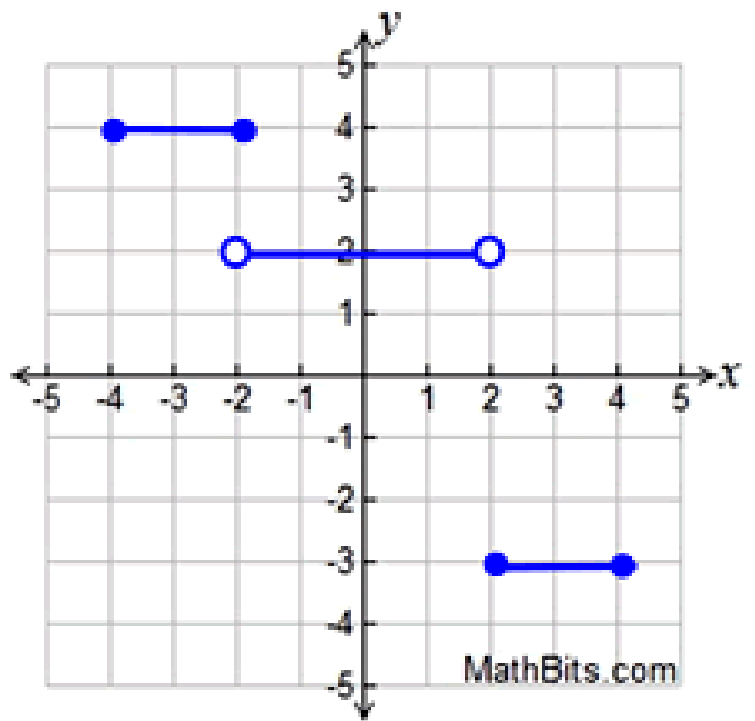
6. Write the equation for the function whose graph is shown below:



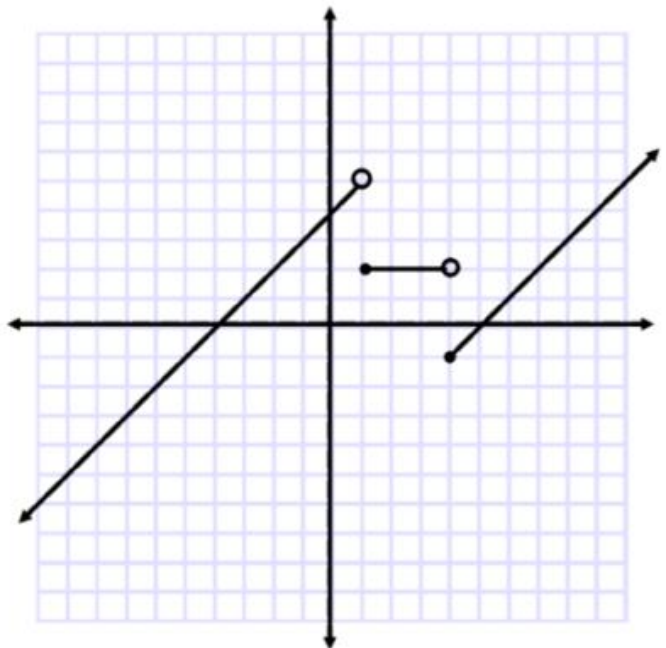
7. Write the equation for the function whose graph is shown below:



8. Write the equation for the function whose graph is shown below:



9. Write the equation for the function whose graph is shown below:



Name _____

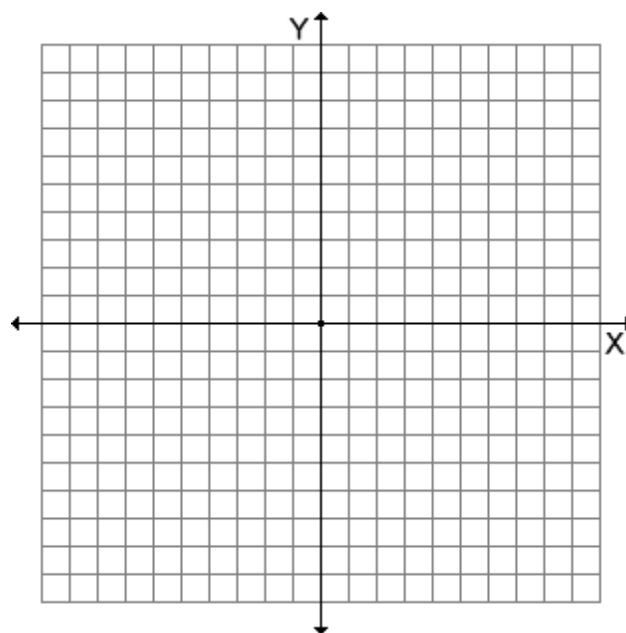
UNIT 6B

Date _____

LESSON 11

HW# _____

1. a. Graph : $f(x) = \begin{cases} \frac{1}{2}x + 7 & x < 0 \\ -x + 7 & x \geq 0 \end{cases}$



b. What type of function is this called? _____

2. Evaluate the following for $f(x) = \begin{cases} -2x - 2 & x \leq 1 \\ 3 & 1 < x < 3 \\ -2x + 6 & x \geq 3 \end{cases}$

a) $f(10)$

b) $f(2)$

c) $f(0)$

3. Write the equation for each function whose graph is shown below:

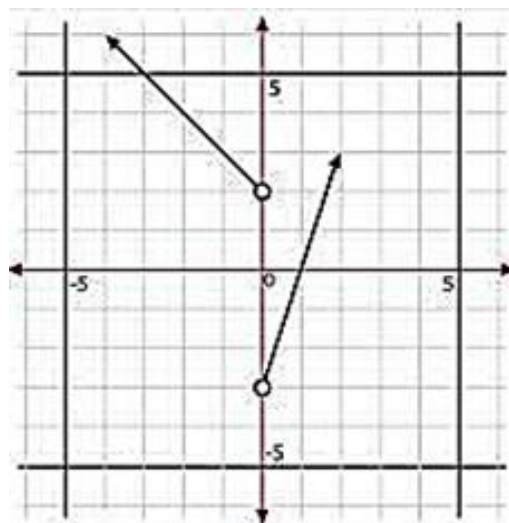
a. Equation:

b. What is the domain in set builder notation?

c. What is the range in set builder notation?

d. What is the domain in interval notation?

e. What is the range in interval notation?



4. Answer the following questions based on the accompanying graph.

a. Is it a function? Explain why or why not.

b. State the domain in:

set builder notation:

interval notation:

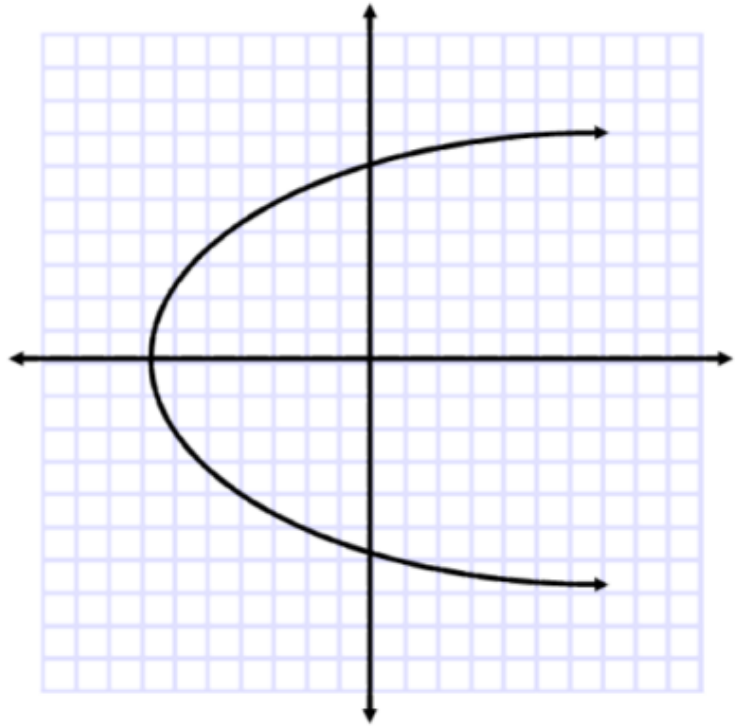
c. State the range in:

set builder notation:

interval notation:

d. Find $f(0)$

e. Find x if $f(x) = -5$



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