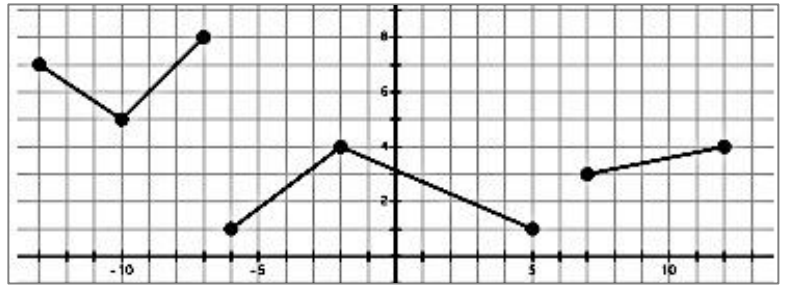


6C Maximum & Minimum

SHOW YOUR WORK AND WORK IN PENCIL

Name: _____ Per: _____

For the graph right state the absolute min/max and then the relative min/max over the given interval.



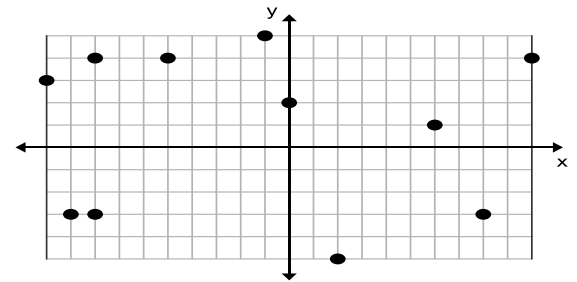
1. What is the Absolute Minimum Point of the graph _____
2. What is the Absolute Maximum Point of the graph _____

3. On the interval from $[-13, -7]$
 - a. Relative minimum _____
 - b. Relative maximum _____

4. On the interval from $[-6, 5]$
 - a. Relative minimum _____
 - b. Relative maximum _____

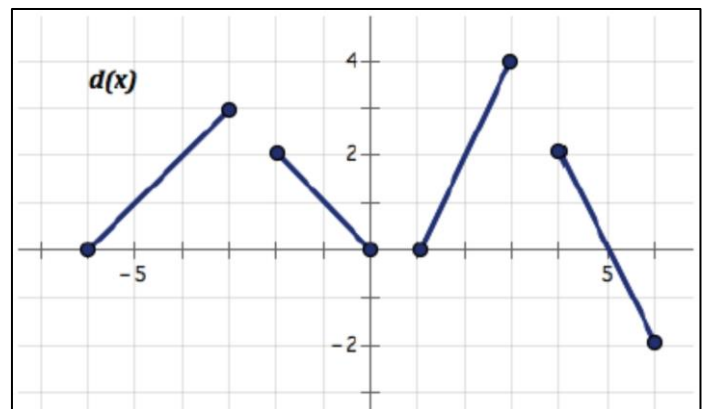
5. On the interval from $[7, 12]$
 - a. Relative minimum _____
 - b. Relative maximum _____

Use the graph right for #6-#10.



6. What is the absolute minimum from $[-10, 10]$ _____
7. What is the absolute maximum from $[-10, 10]$ _____
8. Is the graph Continuous or Discrete? _____
9. From $[-10, 2)$, what is the relative max? _____ Min? _____
10. From $[4, 10]$, what's the relative max? _____ Min? _____

11. Answer the questions based on the graph.
 - a. Function? YES/NO
 - b. Discrete, Continuous, Discontinuous
 - c. Domain: _____
 - d. Range: _____
 - e. Absolute Max: _____
 - f. Relative Max over $[-6, 2]$: _____
 - g. Circle where it's increasing most quickly
Explain _____
 - h. Circle where it decreases most quickly



Evaluate the functions at the given numbers:

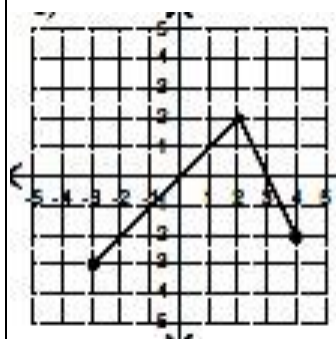
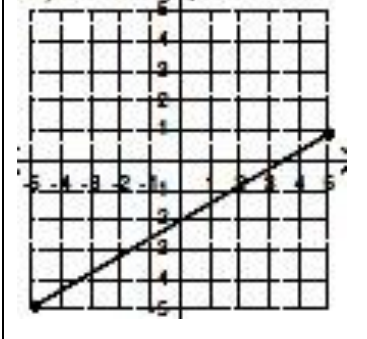
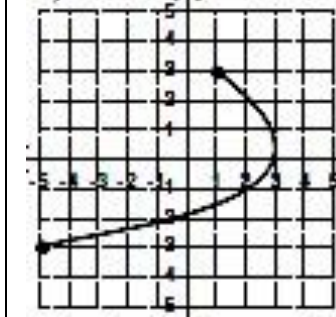
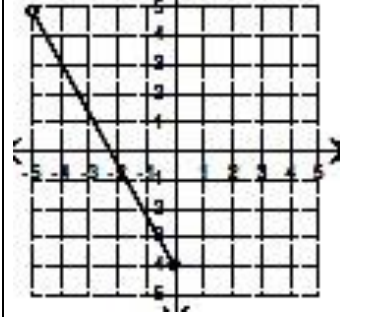
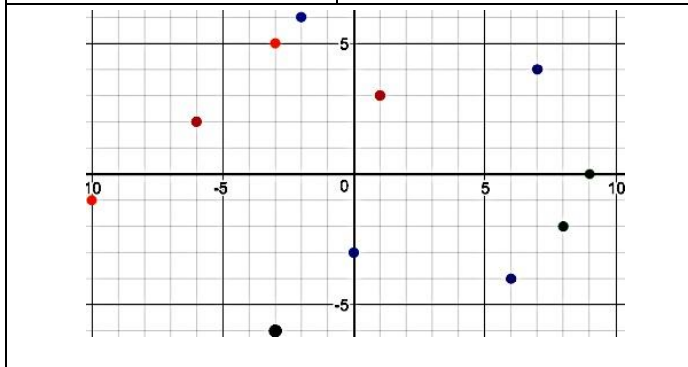
12. $f(x) = 15 + 2x$

- a. $f(-1) =$
- b. $f(0) =$
- c. $f(10) =$
- d. $f(x) = -25$

13. $f(x) = -8 - 2x$

- a. $f(2) =$
- b. $f\left(\frac{1}{2}\right) =$
- c. $f(4) =$
- d. $f(x) = -10$

14. Determine if the relationship for each graph represents a function. Describe the key features listed.
 REMEMBER: When asked for increasing/decreasing it should be stated over an interval (domain values)

<p>a.</p>  <p>Function? _____ Increasing: _____ Decreasing: _____ Absolute Max: _____ Absolute Min: _____ Rel. Min $[0,4]$: _____ Domain: _____ Range: _____ What is $f(1)$? _____</p>		<p>b.</p>  <p>Function? _____ Increasing: _____ Decreasing: _____ Absolute Max: _____ Absolute Min: _____ Domain: _____ Range: _____ What is $f(3)$? _____</p>	
<p>c.</p>  <p>Function? _____ Increasing: _____ Decreasing: _____ Absolute Max: _____ Absolute Min: _____ Domain: _____ Range: _____ What is $f(-1)$? _____</p>		<p>d.</p>  <p>Function? _____ Increasing: _____ Decreasing: _____ Absolute Max: _____ Absolute Min: _____ Domain: _____ Range: _____ What is $f(-1)$? _____</p>	
 <p>Function? _____ Maximum value: _____ Minimum value: _____ What is $f(1)$: _____ What is $f(-6)$: _____ x-intercept: _____ y-intercept: _____</p>		<p>Continuous or Discrete _____ Increasing on interval: _____ Decreasing on interval: _____</p>	

15. Mrs. Packer is selling bracelets at \$2.00 each and earrings at \$3.00 each to make extra money go to Disneyland. She needs to make at least \$600. She only has enough material to make a total of 250 bracelets and/or earrings.

a. Write a system of inequalities for the situation

b. Solve the system by graphing. (Mark your scale to fit the data.)

