Module 5 – 6 Final Group Quiz Review Group # _____

Decide if each situation described below is:

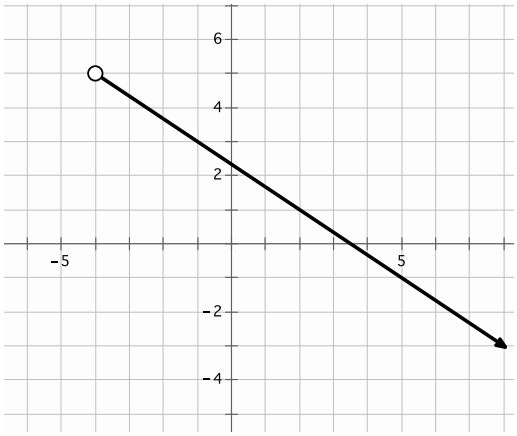
(a) Discrete or Discontinuous, (b) Continuous

1. _____ Ms. Dobashi's brother's hair is super long. It seems to be growing at a rate of 1 inch every month.

2. _____ I currently have a blu-ray/DVD collection that has roughly 900 discs. Each Tuesday new releases are put out, and I usually buy 5 each week.

3. _____ There is a well on my property that provides water for drinking and irrigation. It never stops running. Once I had a flood that ruined part of my movie collection.

Use the graph of $f(x)$ below to answer questions 4-9.



4. Does the function graphed above have a defined maximum? If so, say what it is. If not, say why not.

5. Does the function graphed above have a defined minimum? If so, say what it is. If not, say why not.

6. The function above has an open circle at the point (-4 , 5). What does that open circle mean?

7. What are the following in interval notation?

Domain:		**Increasing:**	
Range:		**Decreasing:**	

8. $f(5)$ = _____

9. $f(x) = 3$, x = _____

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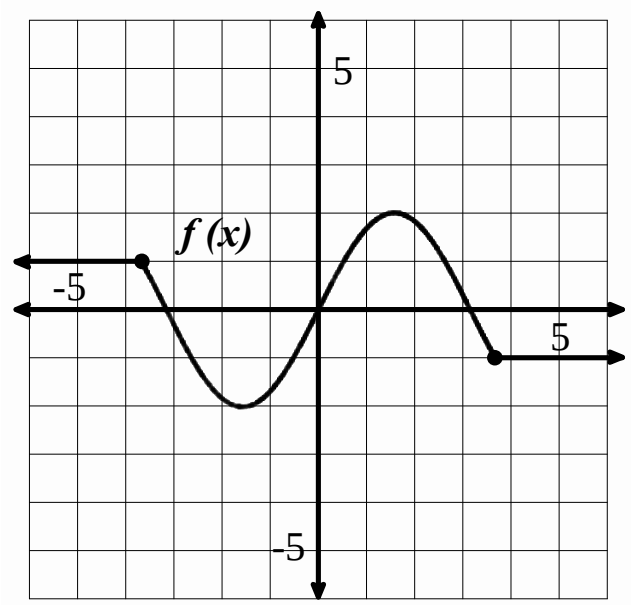
Answer Bank:

[-2,2]	-1	(2,1.5)	(-3.5,-1.5) and (1.5, 3.5)
1.5	(-1.5,-2)	(-infinity,-3.25] and [0,3.25]	(-1.5,1.5)
[-3.25,0] and [3.25,infinity)	(-infinity,infiity)		



Use the graph above to answer the questions below. Estimate where needed. You may write your answers in interval notation or set notation.

11. The minimum of the graph above is: _____.

12. The maximum of the graph above is: _____.

13. The graph above is increasing on the interval(s) of: _____.

14. The graph above is decreasing on the interval(s) of : _____.

15. The range of the graph above is: _____.

16. The domain of the graph above is: _____.

17. The interval(s) where $f(x) \geq 0$ is: _____.

18. The interval(s) where $f(x) \leq 0$ is: _____.

19. $f(5)$ = _____.

20. $f(x) = 2$, x = _____.

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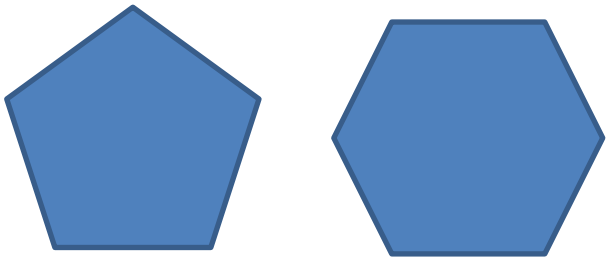
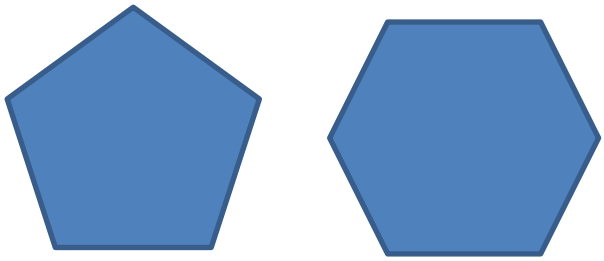
For the statements below, select the quadrilateral(s) that have the described property.

Opposite sides are congruent	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
Opposite angles are congruent	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
All four angles are congruent	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
All four sides are congruent	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
Diagonals bisect each other	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
Diagonals bisect the angles	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square
Diagonals are perpendicular	a. Parallelogram	b. Rectangle	c. Rhombus	d. Square

3. Draw the lines of symmetry for each regular polygon.



4. Find all of the diagonals in each regular polygon.



Answer the following questions are true or false.

5. Will an n-sided regular polygon have *n* lines of symmetry? Explain.

6. Will all lines of symmetry in a regular polygon be diagonals? Explain.

7. Are all diagonals lines of symmetry? Explain.

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Which words are associated with each transformation?

a. Reflection b. Rotation c. Translation

Perpendicular bisector _____ Parallel _____ Specified distance _____

Opposite reciprocal _____ Center of rotation _____ Degrees _____

Arcs _____ Line of reflection _____

Describe the each transformation with a single rigid transformation (translation, rotation, or reflection).

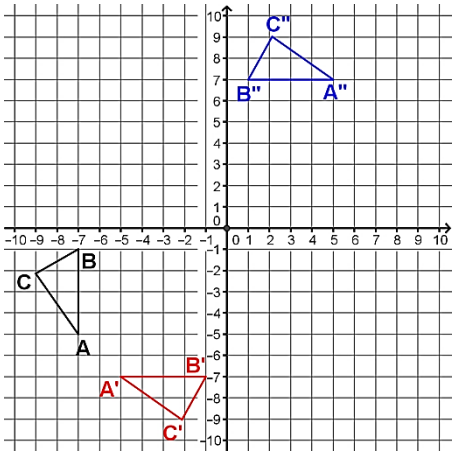
Answer Bank:

a. Reflect across y = 0.	e. Rotate 90 degrees clockwise about the origin.
b. Reflect across x = 0.	f. Rotate 90 degrees counterclockwise about the origin.
c. Reflect across y = x.	g. Rotate 180 degrees about the origin.
d. Reflect across y = -x.	

Triangle ABC to Triangle A'B'C'. _____

Triangle A'B'C' to Triangle A''B''C''. _____

Triangle ABC to Triangle A''B''C''. _____



Triangle XYZ to Triangle X'Y'Z'. _____