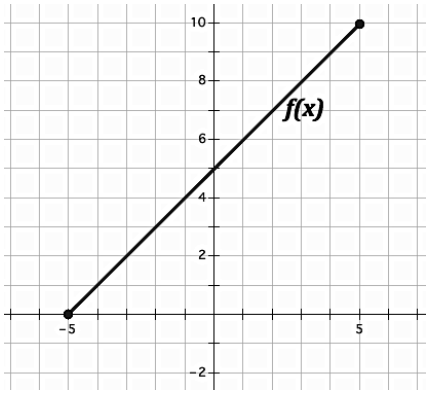
READY, SET, GO! Name Period Date

READY

Topic: Identifying Features of Functions

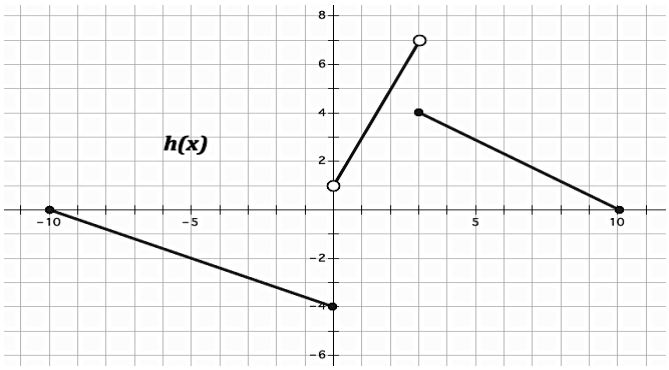
Given each representation of a function, determine the domain and range. Then indicate whether the function is discrete, continuous, or discontinuous and increasing, decreasing, or constant.

1.



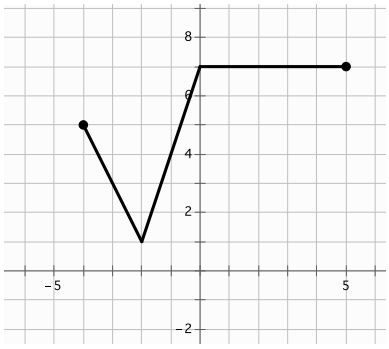
Description of Function:

2.



Description of Function:

3.



Description of Function:

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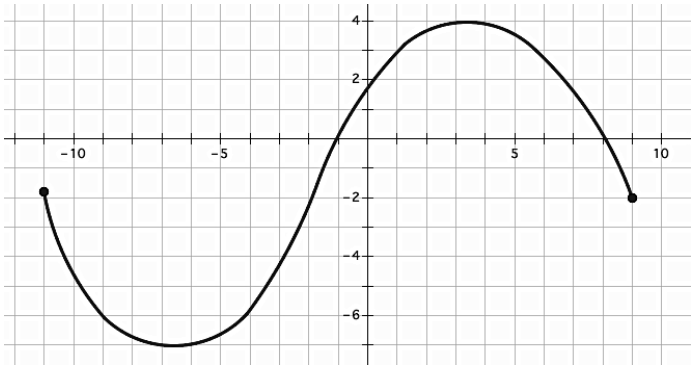
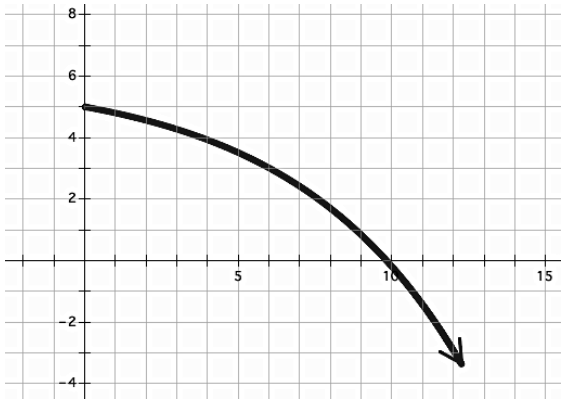
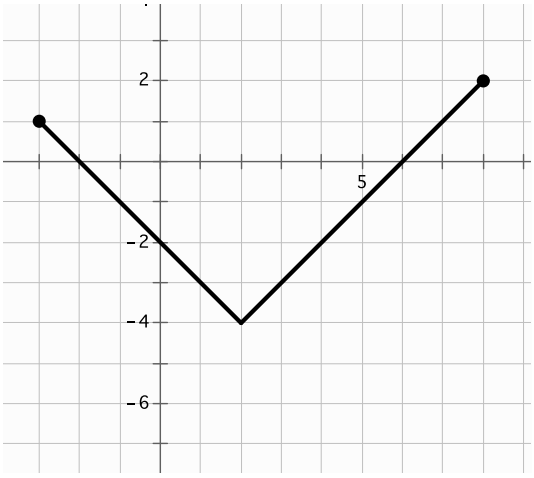
mathematics vision project

4. 

Description of Function:

5. 

Description of Function:

6. 

Description of Function:

SET

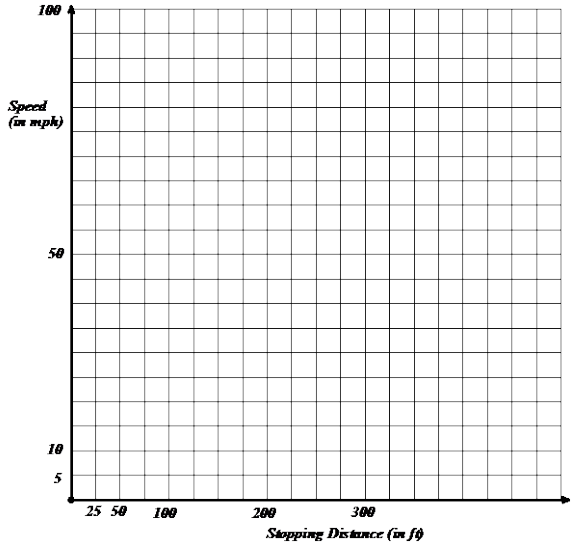
Topic: Square root functions

The speed limit for driving in a school zone is 20mph. That seems so slow if you're riding in a car. But have you ever wondered how quickly you could come to a complete stop going that speed (even if you had super quick reflexes)? It would take you over 13 feet! The speed of a vehicle s and the stopping distance d are related by the function $s(d) = \sqrt{30d}$.

Fill in the table of values for $s(d)$. (Round to nearest whole number.) Then graph $s(d)$ and answer the questions.

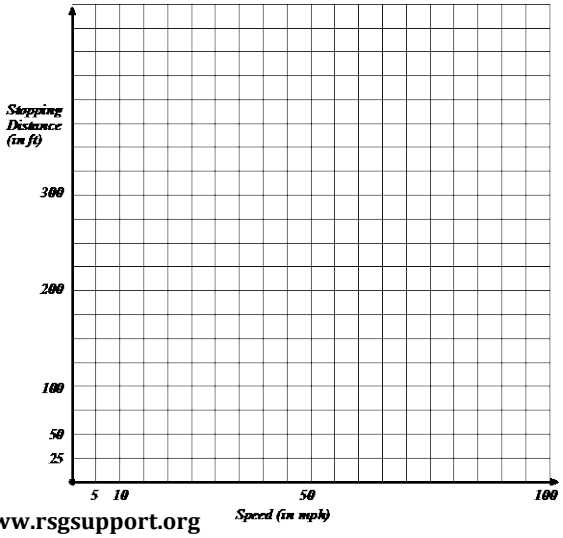
7.

$d\ ft$	$s(d)\ mph$
25	
50	
100	
200	
300	



8. If you were a police officer investigating the site of an accident, you would be able to measure the length of the skid marks on the road and then approximate the speed of the driver. The driver swears he was sure he was going under 60 mph. The tire marks show a pattern for 150 feet. Is the driver's sense of his speed accurate? Justify your answer.

9. Use your answers in problem 8 to make a graph of stopping distance as a function of speed.



10. How are the two graphs related?

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GO

Topic: Solving literal equations for a given variable

Solve each equation for the indicated variable.

11. $C = 2\pi r$; Solve for r.

12. $A = \pi r^2$; Solve for r.

13. $V = \pi r^2 h$; Solve for h.

14. $V = \pi r^2 h$; Solve for r.

15. $V = e^3$; Solve for e.

16. $A = \frac{b_1 + b_2}{2} h$; Solve for h