

Name \_\_\_\_\_

Date \_\_\_\_\_

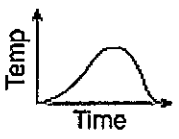
Mrs. Roubos

8R Period \_\_\_\_\_

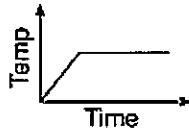
Homework Day 6

1.

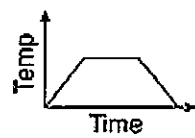
Which graph corresponds to the temperature in an oven that is turned on to bake a loaf of bread then turned off when the bread is done?



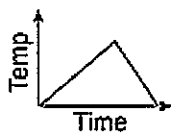
a.



c.



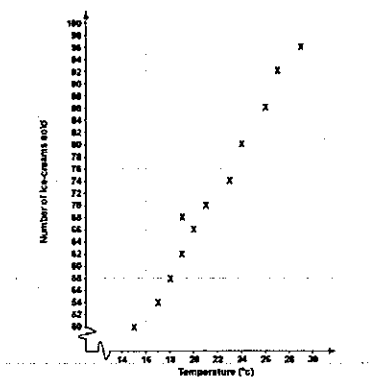
b.



d.

2. Sam's weekly earnings are described by the equation  $y = 2x + 200$ , where  $x$  is the number of hours he works. If Sam earned \$260 one week, how many hours did he work?

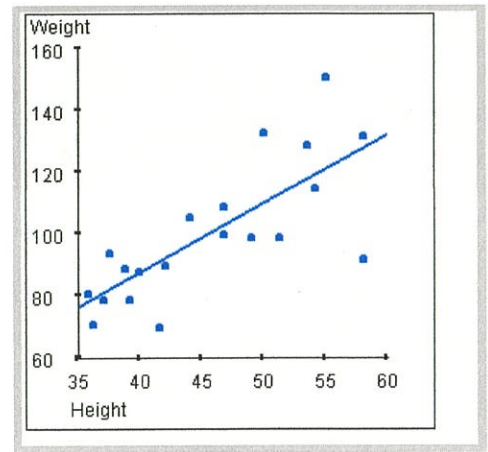
3. What relationship can be made in terms of temperature? Number of Ice-cream sold?



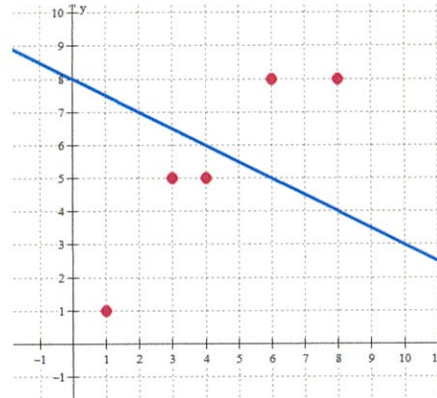
4. The table below shows how much Mary pays to rent DVDs. Create an expression that can be used to find the total cost of renting any number  $n$  of DVDs?

#	\$
1	4
3	11
5	18
7	25

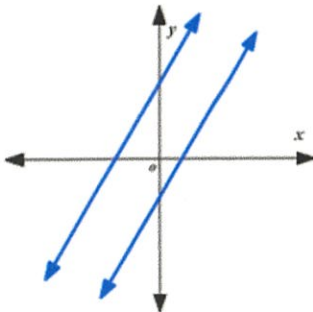
5. Using the trend line, what is someone's approximate weight at a height of 40 inches?



6. Which graph shows the correct line of best fit for the data?



7. How many solutions does the following systems of equations have?



8. Which of the following equations is **non-linear**?

a)  $y = x^2 + 6$

b)  $y = x + 4$

9. Does the following relations represent a function? :  $\{(7,8), (8,9), (7,6)\}$

10. What is the volume of the cylinder whose radius is 4 and whose height is 8? Round To the nearest hundredth.

11. In terms of  $\pi$ , what is the volume of a sphere with a radius of 6 inches?

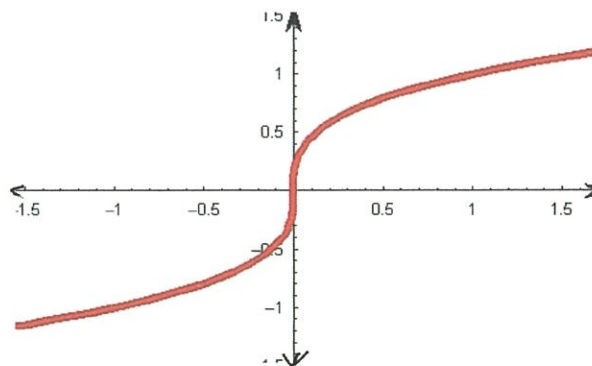
12. Find the volume, to the nearest cubic inch, of a cone with a radius of 2 and a height of 8.

$$V = \frac{1}{3} \pi r^2 h$$

13. Solve  $a^3 = 512$

14. Name the first 5 perfect squares

15. Does the following graph represent a function? Is it linear or non-linear?



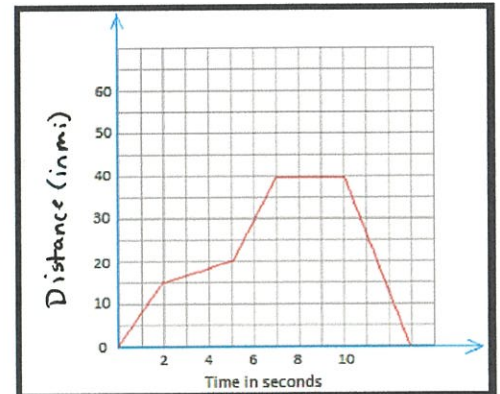
16. Does the following table represent a function?

x	y
5	9
6	8
7	7
8	6
9	5

17. A phone company charges a one-time set-up fee and a monthly service charge. The total cost is modeled by the function  $y = 25 + 10x$ . Which statement represents the meaning of each part of the function?

- (1) y is the total cost, x is the number of months of service, \$10 is the installation fee, and \$25 is the service charge per month.
- (2) y is the total cost, x is the number of months of service, \$25 is the installation fee, and \$10 is the service charge per month
- (3) x is the total cost, y is the number of months of service, \$25 is the installation fee, and \$10 is the service charge per month
- (4) x is the total cost, y is the number of months of service, \$10 is the installation fee, and \$25 is the service charge per month

18. Describe what could be happening between 7 and 10 seconds.



19. Which graph is non-linear?

