Intermediate 1 Accelerated
Linearity Mastery Review

Name Key Date _____ Period _____

1. Write the equation of the table below.

x	1	5	9	13
y	−6	−3	0	3

$y = \frac{3}{4}x - \frac{27}{4}$

2. What is the slope of the line that passes through the points $A(-2, -1)$ and $D(3, 5)$?

$m = \frac{6}{5}$

3. George has $20 in his bank account. He earns $15 for each lawn he mows over the summer.

a) How many lawns will he need to mow to have enough money to pay for a $55 video game? $y = 15x + 20$

x = # lawns
y = $ he has

3 lawns

b) George wants to try and mow 4 yards every day for six days. How much money will he have after these six days?

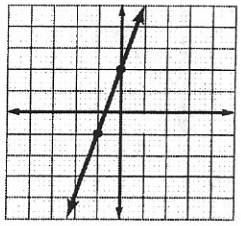
$380

4. What are the slope and y-intercept for the graph of $y - 7x = 10$?

$m = 7$ $b = 10$

5. What is the equation in slope-intercept form for the graph of the line shown?

$y = 3x + 2$



6. David is having his birthday party at a water park. The park charges $150 plus $10 per guest. Write an equation to represent this situation, making sure to define your variables. Once you have your equation, determine the cost if 16 guests were to attend.

$y = 10x + 150$

x = # of guests y = total cost

$310

7. What is the equation of the line, in point–slope form, that passes through (3, −1) and has a slope of 2?

$y = 2x - 7$

8. What is the slope of the table?

x	y
-2	0
-1	9
0	18
1	27
2	36

$m = 9$

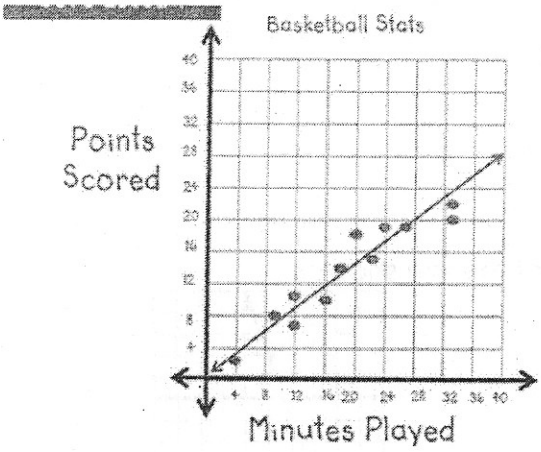
9. Find the equation of the line that passes through the points (-5, 10) and (4, 8).

$y = -\frac{2}{9}m + \frac{80}{9}$

10. Find the equation of the line that passes through the point (5, 8) and has a slope of $-\frac{4}{5}$.

$y = -\frac{4}{5}x + 12$

The following graph shows the number of points a basketball player scored and the number of minutes they played.



11) If this player was in the game for 30 minutes, how many points would he have scored?

About 22

12) How long would it take this player to score 25 points?

About 35 minutes

13) After 40 minutes how many points would this player have scored?

28 points