

Name: _____
Date: _____
Class: _____

Algebra
Unit 3
HW 3-6

1) Maria charges \$15 for every 2 hours that she babysits. Use a linear equation to model this situation and then draw a graph of this linear equation.

2) It is currently 68 degrees outside. You determine that the temperature is dropping at a constant rate of 4 degrees per hour. Find a linear equation that will model this situation. If 68 degrees occurs at 8pm, what time will the temperature reach 48 degrees (use your linear equation to find this answer).

3) Use the following table of data determine if you could use a linear equation to model this data (explain why).

Year	2000	2003	2006	2009
Deer Population	168	216	264	312

4) What is the equation of a line perpendicular to $7x - 4y = 16$ which passes through $(-1, -4)$

5) What is the average rate of change for the following 2 points:
 $(17, 196)$ and $(27, 672)$

6) If the average rate of change is constant for these 3 points, what would the missing x value be? $(-2, 7)$ $(1, 8)$ $(x, 18)$

7) What is the y intercept for the equation $17 + 4y = 3x$?