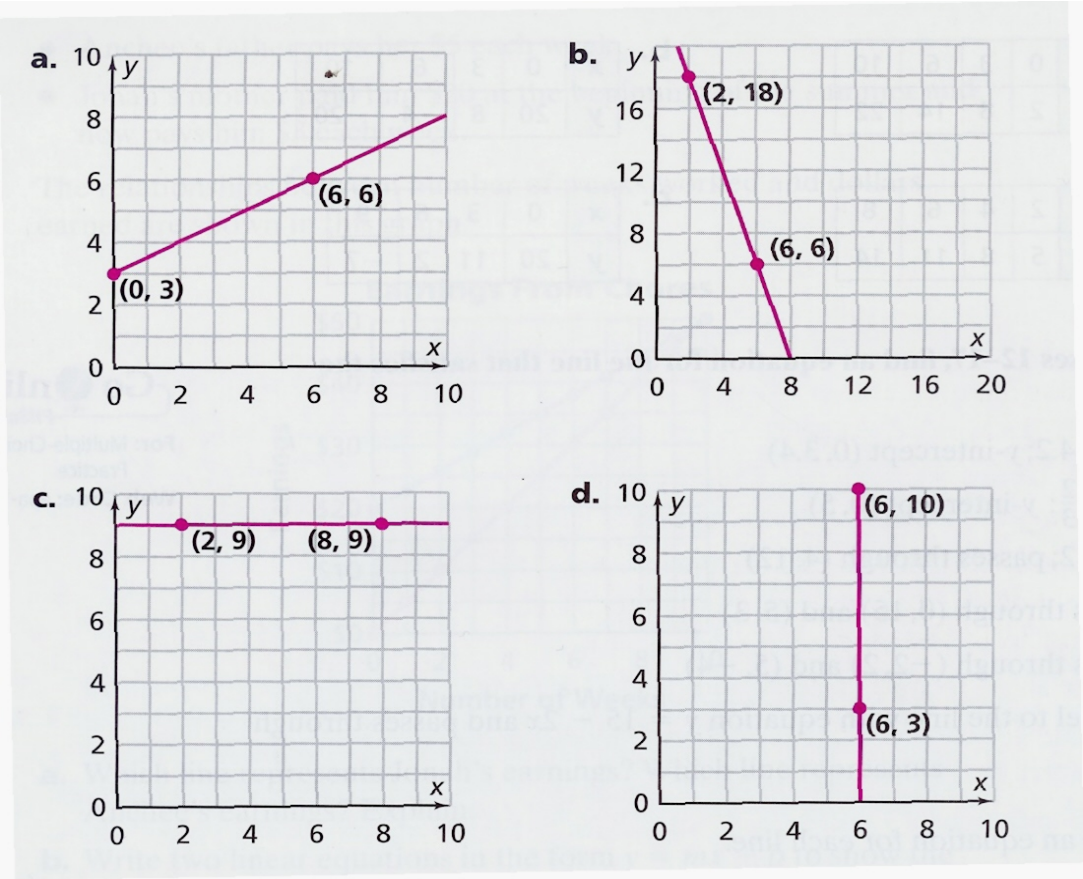
Name _____ Date _____ Hour _____

THINKING WITH MATHEMATICAL MODELS

INV 2.2 – ACE # 6 – 10 pg. 35

6.) These graphs are provided on page 35. Find the slope, y-intercept, and equation for each line.



Graph a: Slope = y-intercept = equation:

Graph b: Slope = y-intercept = equation:

Graph c: Slope = y-intercept = equation:

Graph d: Slope = y-intercept = equation:

For numbers 7-10 (page 35), the relationships are linear.

7a.) A typical American baby weighs about 8 pounds at birth and gains about 1.5 pounds per month for the first year of life. Write an equation that relates weight (w) in pounds to age (a) in months.

7b.) Can this model be used to predict weight at age 80? **Explain** your answer.

8.) Kaya buys a $20 phone card. She is charged $0.15 per minute for long distance calls. Write an equation that gives the value (v) left on her card after she makes (t) minutes of long distance calls?

9.) Dakota lives 1,500 meters from school. She leaves school, walking at a speed of 60 meters per minute. Write an equation for her distance (d) in meters from school after she walks for (t) minutes.

10.) A car can average 140 miles on 5 gallons of gasoline. Write an equation for the distance (d) in miles the car can travel on (g) gallons of gas.