3.7 Practice

Name _____

Class Days _____

Write the equations of the lines that goes through the following point with the given slope:

1. Point: (2 , -3) , Slope = m = 5

2. Point: (-3 , 1) , Slope = m = -2

3. Point: (4 , -7), Slope = m = -3/2

4. Point: (4 , 5), Slope = m = -1/3

Write the equations of the lines that goes through the given points:

5. (3 , 5) and (5 , 9)

6. (4 , -8) and (7 , -3)

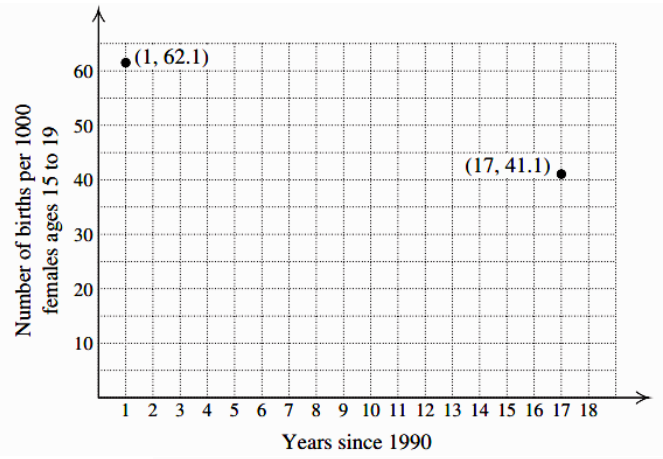
Answers

1) y = 5x -13,
2) y = -2x – 5,
3) y = (-3/2)x – 1,
4) (-1/3)x + 19/3,
5) y = 2x – 1,
6) y = (5/3)x – 44/3

<u>Explain the variable</u>, write an equation for each problem and answer the (a) and (b) questions. HINT- (1) make the slope a decimal round to hundredths and (2) use a separate piece of paper.

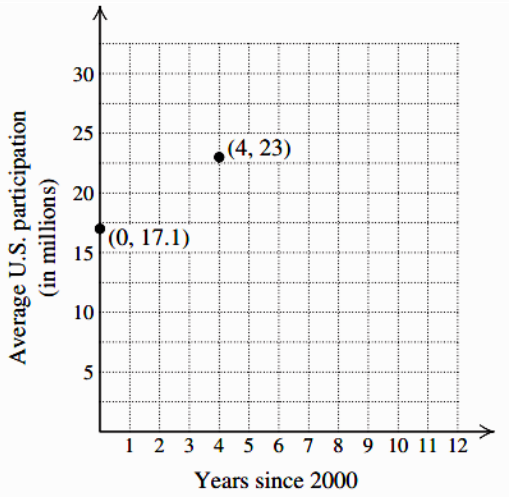
7. The birth rate among teenagers, measured in births per 1000 teen age females fell steadily from 62.1 in 1991 to 41.1 in 2007.

a) Calculate the birth rate of teens in 1999.
b) Predict the birth rate of teens in 2008.



8. Participants in the U.S. food-stamp program grew from approximately 17.1 million people in 2000 to approximately 23 million in 2004.

a) Calculate the number of participants in 2001.
b) Predict the number of participants in 2010.



9. U.S. college enrollment has grown from approximately 14.3 million in 1995 to 17.4 million in 2005.

a) Calculate the U.S. college enrollment for 2002.
b) Predict the U.S. college enrollment for 2010.

10. The number of U.S. residents over the age of 65 was approximately 35 million in 2000 and 43 million in 2012

a) Calculate the number of U.S. residents over the age of 65 in 2010
b) Predict the number of U.S. residents over the age of 65 in 2017.

Answers – You may have different x's than I do, but your (a) and (b) must check below.

7) x = years since 1990
y= births by teens (in 1000s)
a) 51.62 births in 1999
b) 39.83 births in 2008

8) x = years since 2000
y = # of food stamp users (in millions)
a) 18.58 million food stamp users in 2001
b) 31.9 million food stamp users in 2010

9) x = years since 1995
y = # students enrolled (in millions)
a) 16.47 million enrolled in 2002
b) 18.95 million enrolled in 2010

10) x = years after 2000
y = population over 65 (in millions)
a) 41.7 million over 65 in 2010
b) 46.39 million over 65 in 2017