1. Find an equation of the line having the given slope and containing the given point

m=$\frac{6}{7}$, (6,-8)

the equation of the line is y=

simplify your answer use integers or fractions for any number in the expression

2. Write an equation of the line containing the given point and parallel to the given line. Express your answer in the form y=mx+b

(7,8); x+7y=5

The equation of the line is y=

simplify your answer use integers or fractions for any number in the expression

3. Write an equation of the line containing the given point and parallel to the given line. Express your answer in the form y=mx+b

(-6,7); 4x=9y+7

The equation of the line is y=

4. Write an equation of the line containing the given point and perpendicular to the given line. Express your answer in the form y=mx+b

(7,8); 7x+y=3

5. Write an equation of the line containing the given point and perpendicular to the given line. Express your answer in the form y=mx+b

(7,-5); 9x+5y=7

Type your answer in the form y=mx+b simplify your answer type an integer or a fraction)

6. the table lists data regarding the average salaries of several professional athletes in the years 1991 and 2001.

a) use the data points to find a linear function that’s fits the data

b) use the function to predict the average salary in 2005 and 2010

|  |  |
| --- | --- |
| Year | Average Salary |
| 1991 | $266,00 |
| 2001 | $ 1,460,000 |

A linear function that fits the data is S(x)=

7. In 1920, the record for a certain race was45.6 sec. In 1970, it was 45.1 sec. let R(t)= the record in the race and t= the number of years since 1920.

a) Find a linear function that’s fits the data ( Round to the nearest hundredth)

b) use the function (a) to predict the record in 2003 ( Rounded to the nearest tenth)

c) us the function in (a) to predict the record in 2006 ( rounded to the nearest tenth

d) find the year when the record will be 44.7 sec ( Round to the nearest year )