

Name: _____

Date: _____

Notes

Algebra Section 5.2

Pages 292-299



Goal: “You will write an equation of a line using points on the line”

Situation 1: Write the equation of a line in slope – intercept form given the slope and one point:

1. Plug in _____, _____, and _____

Ex: slope: -4 , passes through $(-1, 3)$

2. Solve for _____

3. Plug in _____ and _____

Try These:

Write the equation of the line with the given slope that passes through the given point.

Ex: $(6, 3)$, slope = 2

Ex: $(6, 3)$ slope: -2

Situation 2: Write the equation of the line in slope – intercept form that passes through the given points:

1. Find the _____

Ex: $(-2, 5)$ $(2, -1)$

2. Plug in _____ and one _____ (x and y)

3. Solve for _____

4. Plug in _____ and _____

Try These:

Write the equation of the line in slope – intercept form that passes through the given points:

Ex: $(3, 0)$ $(2, -4)$

Ex: $(1, -2)$ $(5, 4)$

Situation 3 Write an equation for the linear function f with the given values.

1. Write the _____

Ex: $f(-2)=15; f(1)=9$

2. Find the _____

3. Solve for _____

4. Plug in _____ and _____

Try These:

Ex: $f(4) = 9$ and $f(-4) = -7$

Ex: $f(-2) = 10$ and $f(4) = -2$

Ex: $f(2) = 8$ and $f(4) = -2$

Word Problems:

1. Your gym membership costs \$33 per month after an initial membership fee. You paid a total of \$228 after 6 months. Write an equation for the total cost as a function of the number attended. Then find the total cost for 9 months.

2. In BMX racing, racers purchase a one-year membership to a track. They also pay an entry fee for each race at that track. One racer paid a total of \$125 for 5 races. A second racer paid a total of \$170 for 8 races. How much does each race cost? How much does the membership fee cost? Write an equation to find the total cost for any number of races.

3. For science class you need to know the Celsius equivalent of a room temperature of 70° Fahrenheit. To estimate, you use the facts that 32° Fahrenheit is equivalent to °C and that 212°F is equivalent to 100°C. Write an equation to represent degrees Celsius, C , based on degrees Fahrenheit, F .