

Algebra Workshop

Name: _____

Homework 8

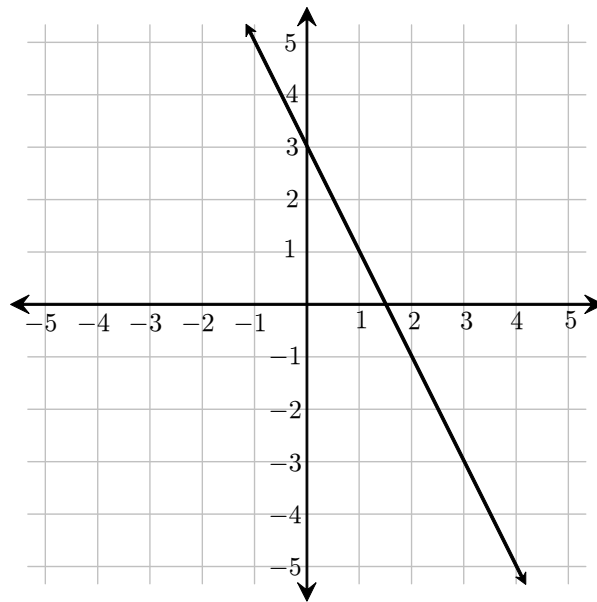
1. Find the equations for the lines through the following points:

(a) $(-4, 2)$ and $(-2, 5)$

(b) $(1, 5)$ and $(3, -1)$

(c) $(3, 0)$ and $(3, 5)$

2. Consider the following line:



(a) What is the slope of the line?

(b) What is the equation for the line?

(c) What is the y -intercept of the line?

(d) What is the x -intercept of the line?

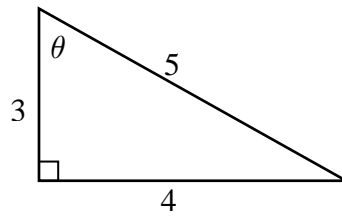
3. Suppose that a 90-inch grizzly bear weighs 500 pounds, and a 100-inch grizzly bear weighs 800 pounds. For the following two questions, assume that the height of a grizzly bear is linearly related to the weight of the grizzly bear.

(a) Find a linear equation relating the height of a grizzly bear to the weight of the grizzly bear.

(b) How many pounds would you expect a 7-foot tall grizzly bear to weigh?

(c) If a grizzly bear weighs 950 pounds, how tall do you expect the grizzly bear is?

4. Consider the following right triangle:

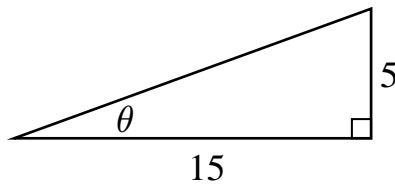


(a) What is $\sin \theta$?

(b) What is $\cos \theta$?

(c) What is $\tan \theta$?

5. Consider the following right triangle:



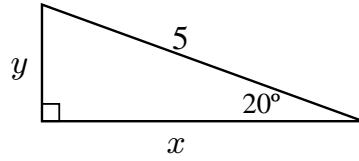
(a) What is the length of the hypotenuse?

(b) What is $\sin \theta$?

(c) What is $\cos \theta$?

(d) What is $\tan \theta$?

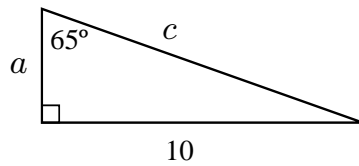
6. Consider the following right triangle:



(a) What is x ?

(b) What is y ?

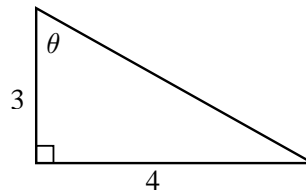
7. Consider the following right triangle:



(a) What is a ?

(b) What is c ?

8. Consider the following right triangle:



Determine the measure of the angle θ .