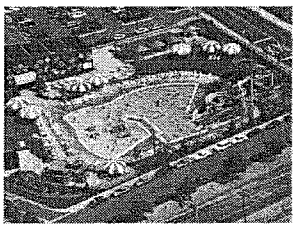
Ready, Set, Go!



© http://www.flickr.com/photos/battlecreekcvb

Ready

Topic: Mathematical comparisons

Use the given comparison statements to answer the questions.

1. 3 out of 5 students prefer playing football to playing basketball.
    a. What percent of students prefer playing football?
    b. What percent of students prefer playing basketball?

2. The ratio of student wearing yellow to students not wearing yellow is 3 to 7.
    a. What fraction of students have on yellow?
    b. What percent of students don't have on yellow?

3. Of the students at school, 40% attended the basketball game.
    a. What fraction of the students attended the basketball game?
    b. How many times more students did not attend the basketball game?

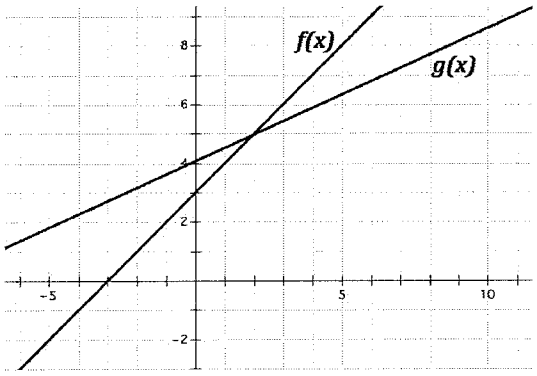
4. 1000 students ride buses to school while 600 walk or carpool.
    a. What fraction of students ride the bus?
    b. How many more students ride the bus than walk or carpool?
    c. What percent of students walk or carpool?

Set

Topic: Comparing functions from different representations

Use the given representation of the functions to answer the questions.

5.



a. Where does $f(x) = g(x)$?

b. What is $f(4) + g(4)$?

c. What is g(-2) – f(-2) ?

d. On what interval is $g(x) > f(x)$?

e. Sketch f(x) + g(x) on the graph provided.

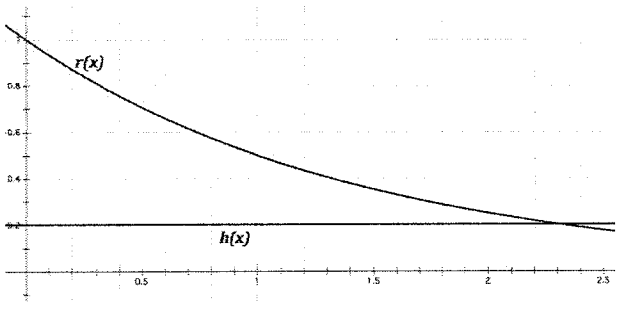
6. The functions $a(x)$ and $b(x)$ are defined in the table below. Each function is a set of exactly five ordered pairs.

x	$a(x)$	$b(x)$
-3	1	-1
-1	7	-5
0	3	-10
2	8	2
7	3	3

a. What is $a(-3)+b(-3)$? b. What is $a(-1) - b(-1)$? c. What is $a(0) + b(0)$?

d. Add two columns to the table and provided a(x) + b(x) in one and a(x) – b(x) in the other.

7.



a. Where is $r(x) > h(x)$?

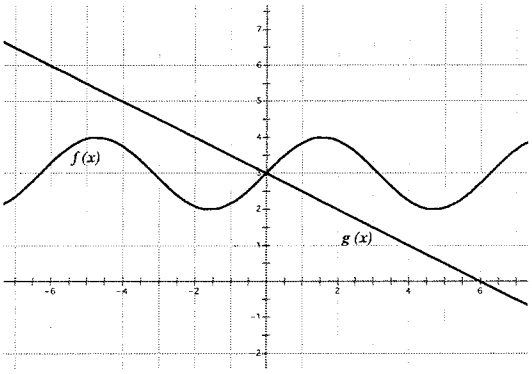
b. What is $r(1) - h(1)$?

c. What is $r(0) + h(0)$?

d. Create an explicit rule for $r(x)$ and for $h(x)$.

e. Sketch $r(x) - h(x)$ on the graph.

8.



a. Where does f(x) = g(x)?

b. What is f(4) + g(4) ?

c. What is g(-2) – f(-2) ?

d. On what interval is g(x) > f(x) ?

e. Sketch f(x) - g(x) on the graph provided.

Go

Topic: Solving equations for a specified variable. Literal equations.

Rewrite each equation in slope-intercept form (y = mx+b).

9. $12x + 3y = 6$

10. $8x + y = 5$

11. $y - 5 = -3(x + 2)$

12. $9x - y = 7$

13. $y - 9x = 4(x - 2)$

14. $16x = 20 + 8y$

Write an explicit function for the linear function that goes through the given point with the given slope simplified into slope-intercept form.

15. m = 3, (-1, 2)

16. m = -5, (3, 4)

17. m = $\frac{3}{4}$, (-4, 2)