MasterMath

Functions

Name _____

Date _____

1. Write this equation in the form of a function: y - 2x = 36

y = 2x + 36

2. Evaluate these functions for the given variable.

function	given variable	solution
y = 3x	x = 4	12
y = 1/3x + 2	x = 15	7
y + x = 8	x = 12	-4
y = .25x + 5	x = 4	6

3. Find the solution sets (ordered pairs) for these functions

function	given variable	solution
y = 7x	x = 4	(4, 28)
y = x - 6	x = 15	(15, 9)
y = 6x + 2	x = 3	(3, 20)
y = 6 - 2x	x = 4	(4, -2)

4. Write a function that describes this situation: "the output is three times the input"

y = 3x

5. Write a function that describes this situation: "the input plus 8 equals the output"

y = x + 8

6. Write a function that describes this situation: "the input is twice the output"

y = 1/2 x

7. Is this relationship a function? Why or why not: "Hair color is the pigmentation of hair follicles due to two types of melanin: eumelanin and pheomelanin. Generally, if more melanin is present, the color of the hair is darker; if less melanin is present, the hair is lighter."

There is a relationship, but it's not a function, because it says: "Generally, if more melanin is present the color of the hair is darker;". There is not a precise relationship between melanin and hair color.

8. Is the ordered pair (3, -2) a solution to the function y = 3x - 2?

no

9. A car is traveling at a speed of 48 MPH. Write a function that describes the relationship between hours traveled (x) and miles traveled (y).

y = 48x

10. CUCC, write a function that describes the situation, and solve: "You want to start a business making bird feeders. You know that there are many people in your neighborhood who like to watch birds, and you know that bird feeders can attract birds, so you think there will be lots of customers. The materials required to build 10 bird feeders costs $85. You think you could sell 10 bird feeders, but you're not sure. What if you only sell 6, or 7. Write a function that calculates how much profit will you make if you sell "x" bird feeders for $12 each? Determine how much you will make if you only sell 7 bird feeders."

function	solution for 7 bird feeders sold
y = 12x - 85	-$1.00