PostTest

1. **Ashley has one more than twice as many puppies as Melissa. The function *a*(m) represents the number of puppies Ashley has, given the number of puppies Melissa has.**

   What are the domain and range of a?

   a : _____ → _____

2. **Asha is making bumper sticker to run for office. The total cost is a one-time fee of $20 to have the stickers designed, plus $0.50 per printed sticker. The function C(s) describes the total cost to make *s* stickers.**

   We have shown you one example of using this function in the table below. Write two more.

$C(10) = 0.50 \times 10 + 20$

3. **Gabrielle and Damoni are frosting cakes for a bake sale. Gabrielle can frost a cupcake in half the time it takes Damoni. A function g(*d*) represents the time it takes Gabrielle to frost a cupcake, compared to Damoni.**

   Which of the following equations describes the relationship between d and g(d)? (circle one)

   $g(d) = 2 \times d$ $g(d) = 2 \div d$ $g(d) = d - 2$ $g(d) = d \div 2$

4. **A fabric store sells ribbon for $1.50 per yard. Write a function y(d), which describes how many yards can be purchased for *d* dollars.**

5. Each pizza at a restaurant comes with 2 free toppings, and charges $0.75 for each additional topping. Write a function *p*(t) which describes the cost of a pizza's toppings.

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6. A monthly phone bill starts at $19, plus an additional $0.25 per minute *m* of use. The function *t*(m) shows the total bill, given a certain number of minutes.

We have shown you one example of using this function in the table below. Write two more.

t(150) = 0.25×150 + 19

7. A train moves 50mph faster than twice the speed of the world's fastest human. Let *h* represent the speed of the runner. A function t(*h*) represents the speed of the train, in relation to the speed of the runner.

Which of the following equations describes the relationship between d and t*? (circle one)*

t(h)= 50 - 2h *t*(h)= 50h + 2 *t*(h)= 2h - 50 *t*(h)= 2h + 50

8. **A hiker begins climbing at 1000 feet above sea level, and gains another 300 feet for every hour they hike. Write the function h(*t*), which represents the number of feet above sea level that the hiker has reached for a given number of hours.**

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