

PreTest

1. The label on the can of paint that Chang bought stated that 1 gallon of paint will cover 300 square feet. The function $f(g)$ shows the number of square feet that g gallons will cover.

What are the domain and range of f ?

domain : _____ range: _____

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2. A monthly phone bill starts at \$25, plus an additional \$0.10 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.

$t(10) = 0.10 \times 10 + 25$

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3. Ashley studied for one hour less than twice as many hours as Melissa studied. The function $a(m)$ shows the number of hours Ashley studied, given the number of hours Melissa did.

Which of the following equations describes the relationship between m and $a(m)$? (circle one)

$$a(m) = \frac{1}{2}m - 1$$

$$a(m) = 1 - \frac{1}{2}m$$

$$a(m) = 1 - 2m$$

$$a(m) = 2m - 1$$

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4. Chantal sells lemonade for \$2.50/glass. Write a function $m(g)$, which describes how much money she makes after selling g glasses.

5. Ms. Gleason is opening a new restaurant. She has enough booths to seat up to 40 people, and is ordering tables to fill the rest of the seating space. Each of these tables can seat up to 6 people. The function $p(t)$ shows the number of people p that can be seated if Ms. Gleason adds t tables.

What are the domain and range of p ?

domain : _____ range: _____

6. Laila is having shirts made with a logo printed on them to promote her band. The total cost is a one-time fee of \$75 to have the logo designed, plus \$8 per shirt to print the logo. The function $C(x)$ shows the total cost needed to make x shirts.

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

$C(64) = 8 \times 64 + 75$

7. Jeff completed a hiking trail in t hours. Michelle completed the trail in half the time it took Jeff to complete it. A function $m(t)$ represents the time it took Michelle to complete the trail compared to Jeff.

Which of the following equations describes the relationship between t and $m(t)$? (circle one)

$m(t) = 2 \times t$

$m(t) = 2 \div t$

$m(t) = t - 2$

$m(t) = t \div 2$

8. A runner is already 3 miles into their race, and is moving at 7.5 miles per hour. Write a function $d(h)$, which describes their total distance after h hours from now.
