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| **Let’s practice finding the Domain and Range of each situation!**  Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date \_\_\_\_/\_\_\_\_/\_\_\_\_ | | |
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| You have 3 quarts of paint to paint the trim in your house. A quart of paint covers 100 ft2. The function f(x)= 100x represents the **area f(x)**, in square in feet, that **x quarts** of paint cover.   |  |  | | --- | --- | | Quarts | Area | | -1 | ??? | | 0 |  | | 1 |  | | 2 |  | | 3 | 300 |   Domain  Range:  Continuous or Discrete | A car can travel 30 miles for each gallon of gasoline. The function ​d(x) = 30x represents the distance​ **d(x), in​ miles**, that the car can travel with **x gallons** of gasoline. The​ car's fuel tank holds 12 gal.   |  |  | | --- | --- | | Gallons | Miles | | -1 | ??? | | 0 | 0 | | 1 | 30 | | 3 |  | | 12 | 360 |   Domain:  Range:  Continuous or Discrete | The **total height h** of a stack of cans **is a** **function of** the **number n of layers of 4 inch cans** used. This situation is represented by h(n) =4n. (maximum of 6 cans)   |  |  | | --- | --- | | # of Cans | Height | | -1 | ??? | | 0 |  | | 1 |  | | 2 |  | | 3 |  |   Domain:  Range:  Continuous or Discrete |
|  | The domain of **f(x)** = -1.5x + 4 is {1, 2, 3, 4}. What’s the range? | The domain of g(x) = 4x - 12 is {1, 3, 5, 7}. What is the range? |
| The Algebra 1 team took students with an A average on a field trip each six weeks. The **number of buses needed** to transport the students on each trip **is a function of** the **number of students who were sent on each trip**. This function consists of only the ordered pairs (10, 1), (55, 2), (90, 3) (170, 6), (325, 11), (500, 17).  Domain:  Range: | The **total cost** of renting a banquet hall **is a** **function of** the **number of hours** the hall is rented. The owner of the banquet hall charges $85 per hour up to a maximum of 4 hours plus a $50 cleaning fee.   |  |  | | --- | --- | | Hours | Cost | | 1 |  | | 2 |  | | 3 |  | | 4 |  |   Domain:  (number of hours)  Range:  (Total cost) | The **total cost** of renting a banquet hall **is a** **function of** the **number of hours** the hall is rented. The owner of the banquet hall charges $85 per half hour up to a maximum of 4 hours plus a $50 cleaning fee.   |  |  | | --- | --- | | Hours | Cost | | 1 |  | | 2 |  | | 3 |  | | 4 |  |   Domain:  (number of hours)  Range:  (Total cost) |
| The number of 18-wheelers, W(c), needed to transport c cars in 1 day can be found using the function W(c) = . There are no more than 6,000 cars transported by the 18-wheelers daily.   |  |  | | --- | --- | | Cars | 18-Wheelers | |  |  | |  |  | |  |  | | The number of boats, B(c), needed to transport c cars in 1 day can be found using the function B(c) = . There are no more than 4,000 cars transported by the boats daily.   |  |  | | --- | --- | | Cars | Boats | |  |  | |  |  | |  |  | |  |
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