The inputs represent the number of bags of candy purchased, and the outputs represent the cost. Complete the table below assuming the price per bag is the same no matter how much candy is purchased.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bags of Candy (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) |  |  |  |  |  | $12.00 |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bags of Candy (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) | **$2.00** | **$4.00** | **$6.00** | **$8.00** | **$10.00** | $12.00 | **$14.00** | **$16.00** |

Describe the function in terms of bags of candy cost.

**Each bag of candy costs $2.00.**

Write a linear equation that represents the cost, y, in terms of the number of bags of candy, x.

**y = 2.00x or y = 2x**

How much will 350 bags of candy cost?

**350(2) = $700.00**

How many bags of candy cost $64.00?

**64.00 ÷ 2 = 32 bags**

A local grocery store sells 2 pounds of grapes for $3.50. Complete the table below assuming the price per pound is the same no matter how many grapes are purchased.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pounds of Grapes (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pounds of Grapes (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) | **$1.75** | **$3.50** | **$5.25** | **$7.00** | **$8.75** | **$10.50** | **$12.25** | **$14.00** |

Describe the function in terms of pounds of grapes and cost.

**1 pound of grapes costs $1.75.**

Write a linear equation that represents the cost, y, in terms of the number of pounds of grapes, x.

**y = 1.75x**

How much will 54 pounds of grapes cost?

**54(1.75) = $94.50**

How many pounds of grapes cost $56.00?

**56.00 ÷ 1.75 = 32 pounds of grapes**

The inputs represent the number of boxes of shoes purchased, and the outputs represent the cost. Complete the table below assuming the price per box is the same no matter how many shoes are purchased.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Boxes of Shoes (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) |  |  |  | $48.00 |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Boxes of Shoes (x) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cost  (y) | **$12.00** | **$24.00** | **$36.00** | $48.00 | **$60.00** | **$72.00** | **$84.00** | **$96.00** |

Describe the function in terms of boxes of shoes and cost.

**Each box of shoes costs $12.00.**

Write a linear equation that represents the cost, y, in terms of the number of boxes of shoes, x.

**y = 12.00x or y = 12x**

How many boxes of shoes can you buy for $288.00?

**288.00 ÷ 12 = 24 boxes**

How much will it cost for 27 boxes of shoes?

**27(12) = $324.00**

Water is flowing out of a tub at a constant rate.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Time in Minutes (x) | 5 | 20 | 30 | 50 | 55 | 60 | 100 | 115 |
| Gallons of Water (y) | **17.5** | **70** | **105** | **175** | **192.5** | **210** | **350** | **402.5** |

Write a linear equation that represents the gallons of water, y, in terms of the time in minutes, x.

**17.5 ÷ 5 = 3.5**

**y = 3.5x**

How many gallons of water would flow into the tub after 48 minutes?

**48(3.5) = 168 gallons**

How long would it take for 120.75 gallons of water to flow in the tub?

**120.75 ÷ 3.5 = 34.5 minutes**