Name: _____ Date: _____

1 A 3-gallon bottle of bleach costs $9.84. What is the price per pint?

2 Factor x^4+10x^2+25 completely.

3 Kathleen's retirement party costs $26, plus an additional $1 for each guest she invites. What is the maximum number of guests there can be if Kathleen can afford to spend a total of $48 on her retirement party?

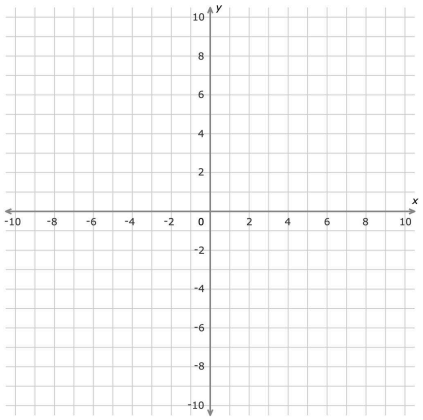
4 In a direct variation, y = 16 when x = 2.

Write a direct variation equation that shows the relationship between x and y.

Write your answer as an equation with y first, followed by an equals sign.

5 Graph this line using the slope and y-intercept:

$$y + \frac{1}{4}x + 6$$



6 Solve for c.

$$16 = 10 - 3c$$

7 What is the range of this function?

(-13, 20)
(18, 20)
(4, 11)

8 Use the following function rule to find f(1).

f(x) = 10 − 10x

f(1) = _____

9 A Girl Scout troop recorded how many boxes of cookies they sold each day for a week.

According to the table, what was the rate of change between Tuesday and Wednesday?

_____ boxes per day

Boxes of Girl Scout Cookies Sold

Day	Boxes of cookies
Monday	43
Tuesday	43
Wednesday	35
Thursday	39
Friday	42

10 What is the range?

-6 -4 -4 -1 -2 -5 -4 -4 -5 -2

Name: _____ Date: _____

1 A 3-gallon bottle of bleach costs $9.84. What is the price per pint?

1 gallon = 8 pints

The bleach costs $0.41 per pint.

2 Factor x^4+10x^2+25 completely.

$(x^2+5)^2$

3 Kathleen's retirement party costs $26, plus an additional $1 for each guest she invites. What is the maximum number of guests there can be if Kathleen can afford to spend a total of $48 on her retirement party?

22 guests

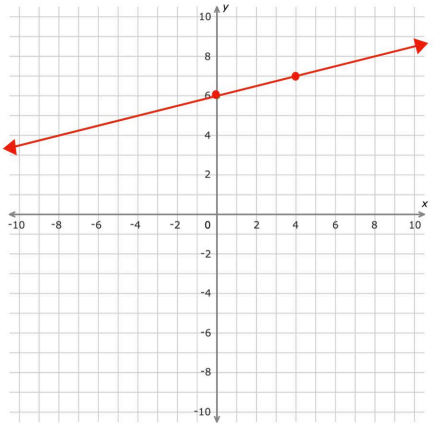
4 In a direct variation, y = 16 when x = 2. Write a direct variation equation that shows the relationship between x and y.

Write your answer as an equation with y first, followed by an equals sign.

The direct variation equation is y = 8x.

5 Graph this line using the slope and y-intercept:

$y + \frac{1}{4}x + 6$



6 Solve for c.

$16 = 10 - 3c$

$c = -2$

7 What is the range of this function?

(-13, 20)
(18, 20)
(4, 11)

To find the range, find the y-coordinates. The range is the set:

{20, 11}

8 Use the following function rule to find f(1).

$f(x) = 10 - 10x$

Plug x = 1 into the function and simplify.

f(1) = 0

9 A Girl Scout troop recorded how many boxes of cookies they sold each day for a week.

According to the table, what was the rate of change between Tuesday and Wednesday?

-8 boxes per day

Boxes of Girl Scout Cookies Sold

Day	Boxes of cookies
Monday	43
Tuesday	43
Wednesday	35
Thursday	39
Friday	42

10 What is the range?

-6 -4 -4 -1 -2 -5 -4 -4 -5 -2

The range is 5.

Math 1