

Semester 1 Faux Final

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Solve each equation.

1) $99 = -4x + 7(-4x + 5)$

2) $5 + 5(a - 4) = -4(7 - a)$

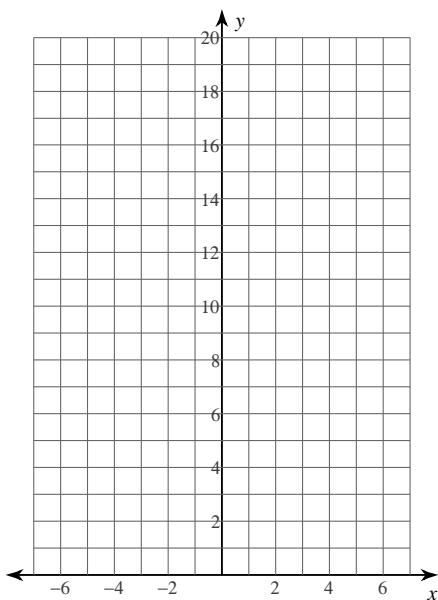
Solve each proportion.

3) $\frac{7}{k} = \frac{2}{8}$

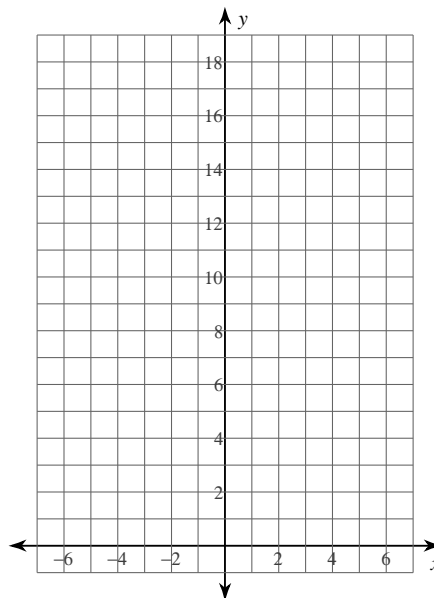
4) $\frac{2}{n+8} = -\frac{9}{n+3}$

Sketch the graph of each function.

5) $y = 4^x$

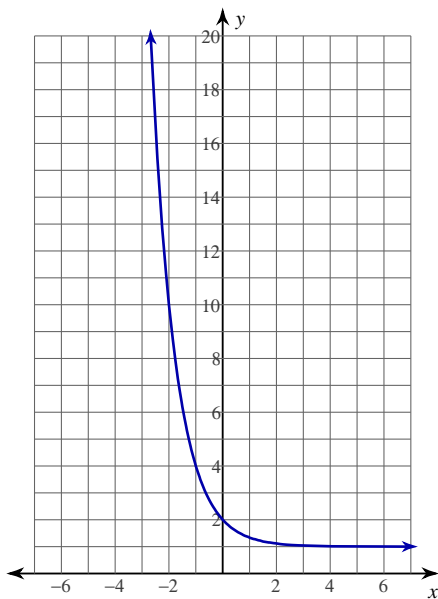


6) $f(x) = \left(\frac{1}{2}\right)^x - 1$

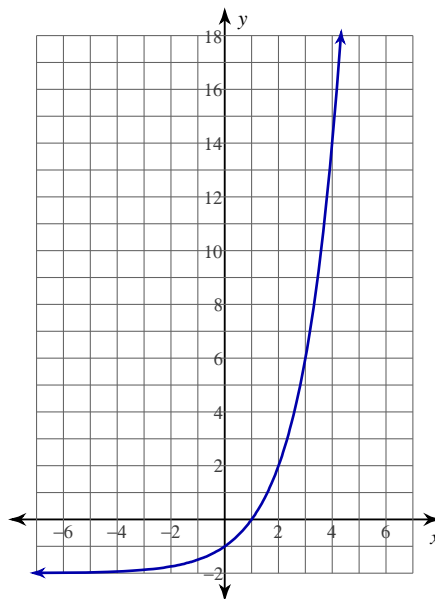


Write an equation for each graph.

7)

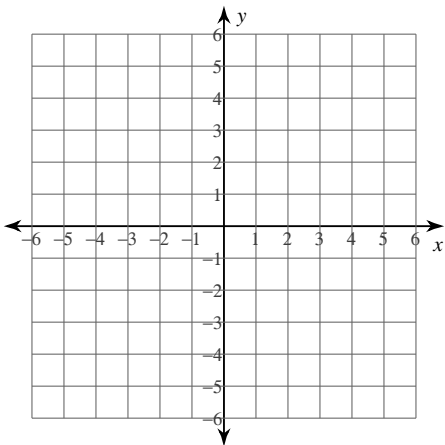


8)

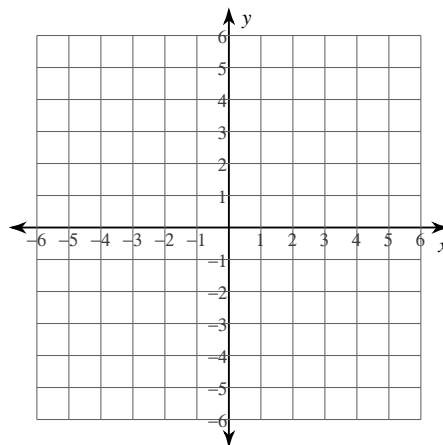


Sketch the graph of each line.

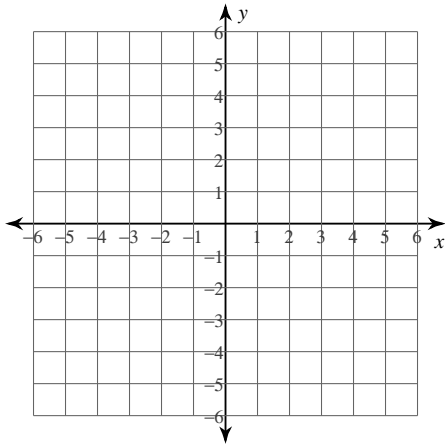
9) x -intercept = 5, y -intercept = 1



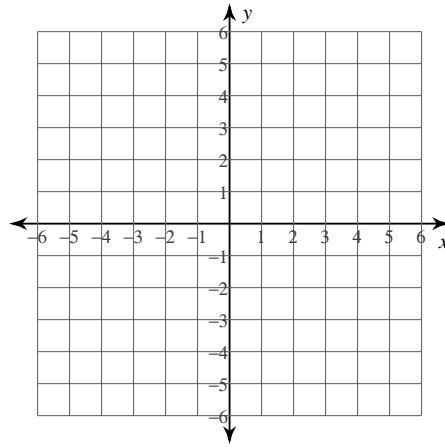
10) $y = \frac{1}{4}x + 2$



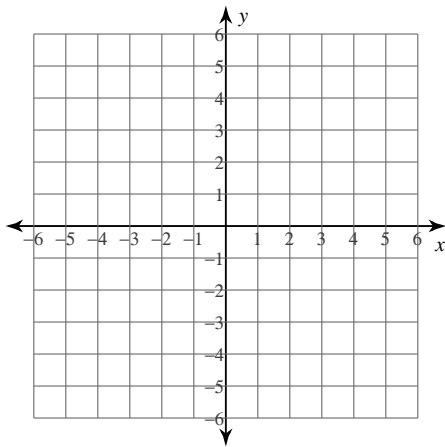
11) $-4x = 4 - y$



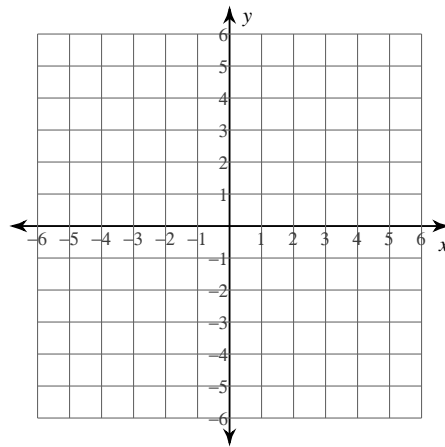
12) $3x + 5 = -y$



13) $y = \frac{1}{3}x + 2$



14) $y = -\frac{3}{5}x + 5$



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

15) Slope = -2 , y-intercept = -5

Write the slope-intercept form of the equation of the line through the given point with the given slope.

16) through: $(-3, -2)$, slope = -5

Write the standard form of the equation of the line described.

17) through: $(-4, 5)$, perp. to $y = \frac{7}{2}x - 2$

Find each percent change. State if it is an increase or a decrease.

18) From 90 to 62

19) From 193 to 158

Solve each problem.

20) What percent of 72 is 37?

21) What is 57% of 348?

Find the value of x or y so that the line through the points has the given slope.

22) $(8, -3)$ and $(x, 7)$; slope: undefined

23) $(-5, 5)$ and $(1, y)$; slope: 0

Find the slope of the line through each pair of points.

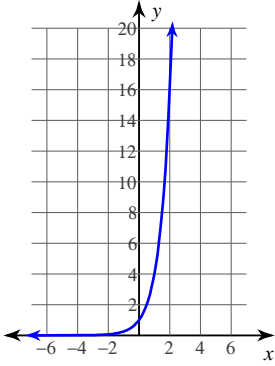
24) $(-17, 17)$, $(-3, -20)$

25) $(-20, -4)$, $(-12, 3)$

Answers to Semester 1 Faux Final

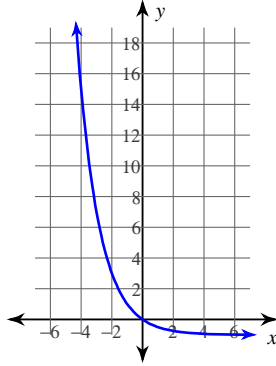
1) $\{-2\}$

5)



2) $\{-13\}$

6)



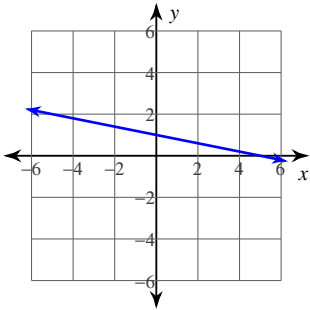
3) $\{28\}$

7) $f(x) = \left(\frac{1}{3}\right)^x + 1$

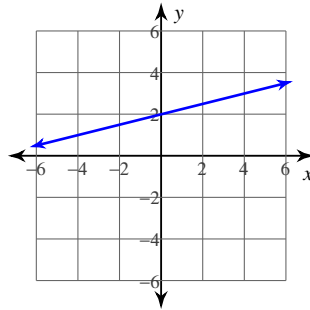
4) $\{-7.09\}$

8) $y = 2^x - 2$

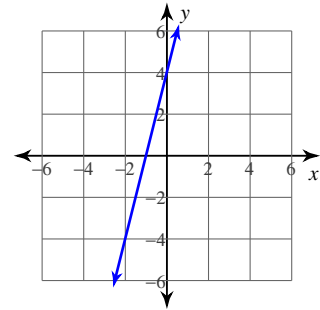
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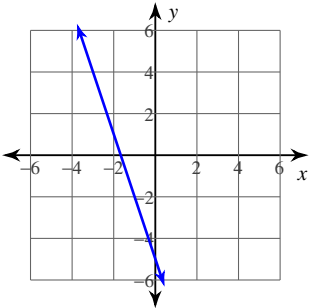
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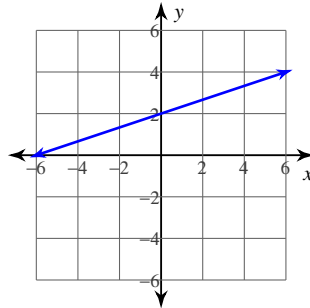
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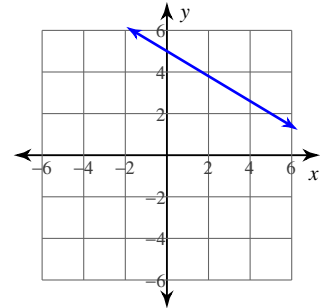
12)



13)



14)



15) $y = -2x - 5$

19) 18.1% decrease

23) 5

16) $y = -5x - 17$

20) 51.4%

24) $-\frac{37}{14}$

17) $2x + 7y = 27$

21) 198.4

25) $\frac{7}{8}$

18) 31.1% decrease

22) 8