Follow order of operations to simplify the following expression:

1) $\frac{29 + 1 - 10}{2} + 9$

Evaluate the expression using the values given for the variables.

2) $m - (p + m^2 - m)$; use $m = -5$, and $p = 8$

Simplify the expression.

3) $-5(r + 5) + 10(4r - 1)$

Simplify the expression and write your answer as a fraction in lowest terms.

4) $\left(-\frac{5}{3}\right) - \frac{2}{5} + 2$

Use a proportion to set up and solve the following problem. Round your answer to the nearest tenth if necessary.

5) A 10 ft tall adult elephant standing next to an adult giraffe casts a 60 ft shadow. If the adult giraffe is 16.6 ft tall, then how long is its shadow?

Set up and solve an equation to answer the question below. Round your answer to the nearest tenth of a percent if necessary.

6) 111 is what percent of 147.8?

Find the percentage change. Round to the nearest tenth of a percent if necessary and state whether the change is an increase or a decrease.

7) From 46 hours to 38 hours

Find the final price of the item below, given that the tax will be applied to the discounted price.

8) Original price of an MP3 player: $169.50
Discount: 27%
Tax: 1%

Use simple interest to find the ending balance, given the following values for principal, rate, and time.

9) $1,630 at 7.2% for 8 years

Solve the equation given in #10.

10) $-1 + \frac{x}{2} = -6$

Sove the equation given in #11.

11) $8(v - 4) - 4(2 + 4v) = 8$

Solve the equation given in #12.

12) $\frac{17}{5}p - \frac{3}{2}p = \frac{19}{4}$

Solve the equation given in #13.

13) $2.7r + 3.4 = 5.4 + 1.9r$

Solve the inequality in #14, write its solution set in interval notation, and graph the solution set on a number line.

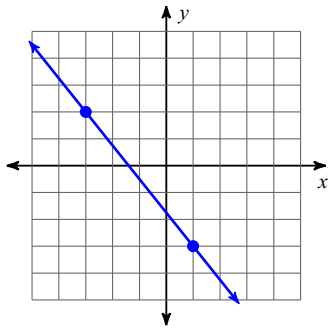
14) $-2 + 2k < -30$

Solve the inequality in #15, write its solution set in interval notation, and graph the solution set on a number line.

15) $-5(5n + 4) < -4(6n + 3)$

Find the slope of the line. Assume that the scale on each axis is 1 unit per tick mark.

16)



Find the x- and y-intercepts of the line represented by the equation below. Plot both intercepts on a coordinate system and draw the line through them.

17) $2x - 5y = -10$

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

18) through: $(-3, 2)$ and $(2, 4)$

Find at least three ordered pairs that satisfy the equation and sketch the graph of the line through them.

19) $x = 20 - 5y$

Solve the system of equations by the method of substitution.

20) $y = -2x$
$-6x - 5y = -8$

Write the point-slope form of the equation of the line described.

21) through: $(-4, 2)$, parallel to $y = -\frac{1}{7}x - 2$

Write the slope-intercept form of the equation of the line described.

22) through: $(-4, 2)$, perpendicular to $y = \frac{4}{5}x - 3$

Solve the system by graphing both lines on one coordinate system.

23) $2x - y = 3$
$4x + y = 3$

Solve the system of equations by the method of elimination.

24) $12x + 5y = 27$
$-6x - 2y = -18$

25) Jill and Micaela are selling pies for a school fundraiser. Customers can buy apple pies and pumpkin pies. Jill sold 11 apple pies and 12 pumpkin pies for a total of $279. Micaela sold 5 apple pies and 6 pumpkin pies for a total of $135. Find the cost each of one apple pie and one pumpkin pie.

