#### Algebra Review #40 SHOW HOW YOU SOLVED EACH PROBLEM

1.

| Solve each:       |                  |
|-------------------|------------------|
| (3x + 10)(2x - 2) | (3x - 2)(2x - 1) |
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2. Identify each expression that is a factor of this polynomial.

 $4x^2 - 2x - 2$ 

| 2x+1 2 $x-1$ $2x-1$ $4x-1$ | -1 |
|----------------------------|----|
|----------------------------|----|

3.

What is the value of  $\frac{3}{x+2}$  when x = 4?

Your answer must be in the form of a fraction in simplest form.

## NAME \_

4. Travis would like to buy some toys to donate to charity. He plans to buy 9 dolls at *d* dollars each, 2 toy cars at *c* dollars each, and 3 train sets at *t* dollars each. Which expression represents the total cost, in dollars, or these items that Travis wants to buy?

**A** 
$$9c + 2t + 3d$$

**B** 
$$9d - 2c - 3t$$

**c** 
$$9d + 2c + 3t$$

**D** 
$$9c - 2t - 3d$$

# 5. When n > 0, which expression is equivalent to $\sqrt{42n^9}$ in simplest form?

**A**  $n^{3}\sqrt{42}$ 

**B**  $n^{4}\sqrt{42n}$ 

**C** 
$$6n^3\sqrt{7}$$

**D**  $6n^4\sqrt{7n}$ 

6. Look at the system of equations.

> y = -x + 27x + 4y = -1

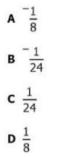
What is the value of x for the solution to this system of equations?

A −5 B −3

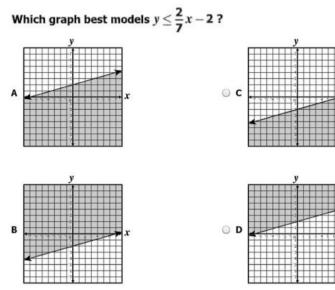
**C** 3

**D** 5

7. What is the slope of the line represented by  $\frac{1}{8}x + 3y = 3$ ?



## 8.



9.

#### Which inequality represents all the solutions of 9(4x-8) < 4(6x+9)?

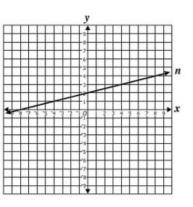
A x < -3

B x > -3
C x < 9</li>

**D** x > 9

## 10.

The graph of line *n* is shown.



#### Which number is closest in value to the slope of line n?

A -4

**B**  $-\frac{1}{4}$ 

**c**  $\frac{1}{4}$ 

**D** 4