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

1. 

Solve each:

| $(3 x+10)(2 x-2)$ | $(3 x-2)(2 x-1)$ |
| :--- | :--- |
|  |  |
|  |  |

2. Identify each expression that is a factor of this polynomial.

$$
4 x^{2}-2 x-2
$$

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

## 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 $9 c+2 t+3 d$
B $9 d-2 c-3 t$
C $9 d+2 c+3 t$
D $9 c-2 t-3 d$
5. When $\mathbf{n} \boldsymbol{>} \mathbf{0}$, which expression is equivalent to $\sqrt{42 n^{9}}$ in simplest form?

A $n^{3} \sqrt{42}$
B $n^{4} \sqrt{42 n}$
C $6 n^{3} \sqrt{7}$
D $6 n^{4} \sqrt{7 n}$
6.

Look at the system of equations.

$$
\left\{\begin{array}{l}
y=-x+2 \\
7 x+4 y=-1
\end{array}\right.
$$

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 $\frac{1}{8} x+3 y=3$ ?
A $-\frac{1}{8}$
B $-\frac{1}{24}$
c $\frac{1}{24}$
D $\frac{1}{8}$
8.

Which graph best models $y \leq \frac{2}{7} x-2$ ?
A


- c


D


9. 

Which inequality represents all the solutions of $9(4 x-8)<4(6 x+9)$ ?
A $x<-3$
B $x>-3$
C $x<9$
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

