you need out your warm up & agenda

Homework: Word Problems. TEST FRIDAY!!!!

Warm Up:

1) -5x - 10 > -50

$$+10 \quad +10$$

$$-5x > -40$$

$$-5 \qquad -5$$

$$x < 8$$

2) $\dfrac{x}{4} + 3 \leq 12$

$$-3 \quad -3$$

$$\dfrac{x}{4} \leq 9 \cdot \dfrac{4}{1}$$

$$x \leq 36$$

Equations Word Problems

Circle important numbers & underline the question

equation/inequality hints

- equation $=$
- Inequality $> < \geq \leq$
- Constant $=$ # that doesn't change
- changes(each, every, per) — the # with the variable

$$\underset{\text{change}}{\underline{2x}} + \underset{\text{constant}}{\boxed{5}} = 30$$

You have $60. You want to buy a pair of shoes that cost $35. With the rest of the money you will buy socks for $5 each. Let *s* represent the number of socks you can buy. Write an equation to represent the number of socks you can purchase.

$$5x + 35 = 60$$
$$-35 \quad -35$$
$$5x = 25$$
$$\frac{5x}{5} \qquad \frac{25}{5}$$
$$x = 5$$

Jada's new cable service charges an installation fee of $50. Then, her bill will be $85.27 each month. Including the installation fee, how many months of cable can she receive for $646.89?

$$85.27x + 50 = 646.89$$
$$ -50 \quad - 50.00$$
$$85.27x = 596.89$$
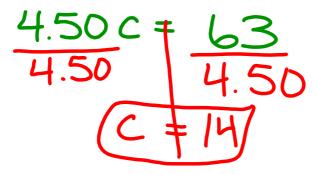$$\frac{85.27x}{85.27} = \frac{596.89}{85.27}$$
$$\boxed{x = 7}$$

Blake paid an electrician x dollars per hour for a 5-hour job plus $75 for parts. The total charge was $450. Write an equation to determine how much the electrician charged per hour.

$$5x + 75 = 450$$
$$ - 75 \quad -75$$
$$5x = 375$$
$$\frac{5x}{5} = \frac{375}{5}$$

$$\boxed{x = 75}$$

$$\begin{array}{r} 75 \\ 5\overline{)375} \\ -35\downarrow \\ \hline 25 \end{array}$$

Darryl went shopping for office supplies. He was asked to spend less than $55. He spent $44.50 on coffee, paper, and binder clips. He also bought some notepads at $1.50 each. For Darryl to stay within the budget, how many notepads can he buy?

$$1.50x + 44.50 < 55.00$$
$$-44.50 \qquad -44.50$$
$$1.50x < 10.50$$
$$\frac{1.50x}{1.50} < \frac{10.50}{1.50}$$
$$x < 7$$

$$1.5\overline{)10.5}$$

$$15\overline{)105} \; = 7$$

Last week Aldin earned $4.50 for every car he washed. He washed cars over the weekend and now has $63. Write an equation to show how many cars, *c* he washed.

$$\frac{4.50\,c}{4.50} = \frac{63}{4.50}$$

$$c = 14$$

Spends on a poster

Caitlin ~~has a~~ $10 ~~gift certificate~~ to the music store. She has chosen a number of CDs from the $7 bargain bin. If the total cost of t~~he CDs~~ is $32, write the equation to show how many CDs Caitlin can buy ~~without spending more than her gift certificate.~~

$$7x + 10 = 32$$
$$-10 \quad -10$$
$$\frac{7x}{7} = \frac{22}{7}$$
$$x = 3$$

Ricky lost Mrs. Sangster's football. He buys her a new one for $5. He also wanted to buy some candy. The candy costs $1.50. He has $40. How much candy can he buy without spending more than $40? Write an inequality.

$$1.50x + 5 \leq 40$$

Equation/Inequality Word Problems

1) Louis's new cable service charges an installation fee of $45. Then, his bill will be $90.25 a month. Including the installation fee, how many months of cable can he receive for $315.75?

2) You have at least $60 to spend on school supplies. You want to buy a book bag that costs $35, and notebooks that cost $3.50 each. To stay in his budget, how many notebooks can he buy?

3) Yesterday you earned $5.50 for every dog you walked. If you earned $45.40 total, write the equation to determine how many dogs you walked.

4) You have $70. You buy a sweatshirt that costs $40. With the rest of the money you want to buy socks that cost $6 each. Write an equation to represent s how many socks you can buy. Solve!

Sit Silently for the news