

You need out your warm up & agenda

Homework: Inequalities

Warm Up:

1) $-3x - 10 = -40$

copy cat

$$\begin{array}{r} +10 \quad +10 \\ - \quad -3x = -30 \\ \hline = 3 \quad = 3 \\ x = 10 \end{array}$$

+

$\frac{+}{10} \mid \frac{-}{40}$

2) $\frac{x}{6} + 2 = 6$

cc

$$\begin{array}{r} \frac{x}{6} + 2 = 6 \\ -2 \quad -2 \\ \hline \frac{x}{6} \quad 4 \cdot 6 \\ \hline x = 24 \end{array}$$

1) Fix circled answers from Friday's skills check

check for:

signs, correct inverse operations, simple math mistakes ≈ 15 mins

2) Inequalities Intro/Review

**remember: the alligator eats the bigger number*

Inequalities Introduction/Review

+

Children under 12 cannot ride the rollercoaster.

What does x represent?

*children's age**

$$x < 12$$

it must be less than 12

$>$
greater
than
○

$<$
less
than
○

\geq
greater
than or
equal to
*at
least
●

\leq
less
than or
equal to
*at
most
●

$=$
equal

You must be older than 20 to vote.

age

$$x > 20$$

We can fit at most 8 people in our car.

ppl in car

$$x \leq 8$$

I can spend at least \$450 on a new TV.

\$ Spend

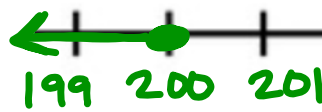
$$x \geq 450$$

I have 25 tickets to spend. <i>exactly</i> <i>tickets</i>	$x = 25$
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Practice! Write and graph the equation:

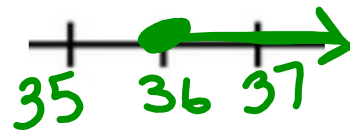
- 1) The elevator can hold at most 200 pounds.


$$x \leq 200$$




- 2) You must be 36 inches or taller to ride the ride.

$$x \geq 36$$



3) I need fewer than 20 minutes to get ready in the morning.  A number line with tick marks at 19, 20, and 21. An open circle is drawn at 20, and a green arrow points to the left from this circle.

$$x < 20$$

4) I have at least \$500 to spend on my vacation.  A number line with tick marks at 499, 500, and 501. A closed circle is drawn at 500, and a green arrow points to the right from this circle.

$$x \geq 500$$