

Pink: Inequalities Word Problems

Name _____

Write and Solve an Inequality

1. The NGA hoped to raise more than \$3000 for cancer. Every time a student donated \$40 they would get to pie a math teacher in the face. How many donations would it take for the students to reach or exceed their goal?

Name _____

Write and Solve an Inequality

2. Beth wanted to go to the school dance but only had \$25 to spend. If the ticket cost \$5 how many cookies could Beth buy at the dance if each cookie costs \$1.25?

Name _____

Write and Solve an Inequality

3. George wanted to start his own painting business. He bought a ladder and some supplies for \$180. He plans on charging \$10 per hour painting. How many hours will George have to work if he is to make at least a profit of \$750?

Name _____

Write and Solve an Inequality

4. Peter begins his kindergarten year able to spell 10 words. He is going to learn to spell 2 new words every day. Write an inequality to determine the minimum number of whole days it will take for him to be able to spell *at least* 75 words.

Pink: Inequalities Word Problems

Name Key

Write and Solve an Inequality

1. The NGA hoped to raise more than \$3000 for cancer. Every time a student donated \$40 they would get to pie a math teacher in the face. How many donations would it take for the students to reach or exceed their goal?

Let d be donations

$$\frac{40d}{40} > \frac{3000}{40}$$

$$d > 750$$

It would take
more than 750 students
to donate

Name Key

Write and Solve an Inequality

2. Beth wanted to go to the school dance but only had \$25 to spend. If the ticket cost \$5 how many cookies could Beth buy at the dance if each cookie costs \$1.25?

Let c be cookies

$$\begin{array}{r} 1.25c + 5 \leq 25 \\ -5 \quad -5 \end{array}$$

$$\frac{1.25c}{1.25} \leq \frac{20}{1.25}$$

$$c \leq 16$$

Beth can buy
16 cookies or less.

Name Key

Write and Solve an Inequality

3. George wanted to start his own painting business. He bought a ladder and some supplies for \$180. He plans on charging \$10 per hour painting. How many hours will George have to work if he is to make at least a profit of \$750?

Let h be hours

$$\begin{array}{r} -180 + 10h \geq 750 \\ +180 \qquad +180 \\ \hline \end{array}$$

$$\frac{10h}{10} \geq \frac{930}{10}$$

$$h \geq 93$$

George has to work
93 hours or more

Name Key

Write and Solve an Inequality

4. Peter begins his kindergarten year able to spell 10 words. He is going to learn to spell 2 new words every day. Write an inequality to determine the minimum number of whole days it will take for him to be able to spell at least 75 words.

Let d be days

$$\begin{array}{r} 10 + 2d \geq 75 \\ -10 \qquad -10 \\ \hline \end{array}$$

$$\frac{2d}{2} \geq \frac{65}{2}$$

$$d \geq 32.5$$

Peter will need to
spend 33 days to
learn to spell
the minimum words