

## Inequality Practice

1. Summer has \$800 in her savings account. She wants to have at least \$450 left at the end of her vacation. If she plans on spending \$75 a day, how many days can she go on vacation?

$$\begin{array}{r}
 800 - 75x \geq 450 \\
 \underline{-800 \quad -800} \\
 -75x \geq -350 \\
 \underline{-75 \quad -75} \\
 x \leq 4.\bar{6}
 \end{array}$$

She can go away for 4 days or less.

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2. Tom wants to order chicken wings. The delivery charge is \$5.00 and wings are \$0.80 each. If Tom has \$20 to spend, how many wings can he purchase?

$$\begin{array}{r}
 5 + 0.80x \leq 20 \\
 \underline{-5 \quad -5} \\
 0.80x \leq 15 \\
 \underline{0.80 \quad 0.80} \\
 x \leq 18.75
 \end{array}$$

he can buy 18 wings or less.

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3. Max studies for **at least 5 hours** every week. He studies  $\frac{1}{3}$  of an hour each time. If he's already studied for 2 hours this week, how many more times does he need to study to reach his **minimum of 5 hours**?

$$\begin{array}{r} 2 + \frac{1}{3}x \geq 5 \\ -2 \qquad -2 \\ \hline \frac{1}{3}x \geq 3 \\ \frac{1}{3} \qquad \frac{1}{3} \end{array}$$

$$x \geq 9$$

He needs to study at least 9 more times.

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4. Sue buys a pack of hamburgers for \$5.99 a pound. She buys a 5 pound pack, and has it delivered to her house. There is a \$2.99 delivery fee. How much money does Sue have left for the rest of her groceries if she doesn't want to spend more than \$50.

$$\begin{array}{r} 5.99 \times 5 = 29.95 \\ + 2.99 \\ \hline \$32.94 \end{array}$$

$$\begin{array}{r} 50.00 \\ - 32.94 \\ \hline \boxed{\$17.06} \end{array}$$

$$\begin{array}{r} x + 5.99(5) + 2.99 > 50 \\ x + 29.95 + 2.99 > 50 \\ x + 32.94 > 50 \\ - 32.94 \quad 32.94 \\ \hline x > 17.06 \end{array}$$

Feb 24-9:41 AM