## SmartMäthz

## Word Problems Leading to Inequalities

Grade 7 Place Value Worksheet
$\qquad$ Name: $\qquad$

## SOLVE THE FOLLOWING WORD PROBLEMS

1. Joe is driving along a road with a 50 mph speed limit. He makes sure he is driving at or below the limit. Write an inequality involving the variable $\mathbf{j}$ to show how far he will have traveled in 3 hours.
2. Abel is skiing on a road with a 75 mph speed limit. She makes sure she is skiing at or above the limit. Write an inequality involving the variable a to show how far she will have skied in 4 hours.
3. A book has 10 chapters. The shortest chapter is 15 pages. Write an inequality involving the variable $\mathbf{b}$ to show how many pages the book has.
4. The world record for high jump is 2.45 meters. Tony thinks he can beat this. Write an inequality involving the variable $\mathbf{t}$ to show how many cm Tony needs to jump to break the record.
5. Ned goes shopping in Walmart with $\$ 120$. He comes out of the store with less than $\$ 30$ left. Write an inequality involving the variable $\mathbf{n}$ to show how much money he soent at Walmart.
6. Kate takes her cat for a walk each day. She always walks at least 2 miles. Write an inequality involving the variable $\mathbf{k}$ to show how far she walks her cat in a week.
7. Bob has a 1 -liter bottle of water. He drinks less than $\frac{1}{4}$ of the bottle. Write an inequality involving the variable $\mathbf{b}$ to show how many mililiters are left in the bottle.
8. Jones spends at least $30 \%$ of his salary on food. Write an inequality involving the variable $\mathbf{j}$ to show the percentage of his salary which is left.
9. In a throwing contest, Fred throws the ball more than 20 yards. Newton throws twice as far as Fred. Write an inequality involving the variable $\mathbf{f}$ to show how far Newton throws the ball.
10. Water will freeze when the temperature is at or below $32^{0} F$. Write an inequality involving the variable $\mathbf{w}$ to show the temperature at which water will freeze.

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## Answers

1. $j \leq 150$ miles
2. $a \geq 300$ miles
3. $b>150$ pages
4. $t>245 \mathrm{~cm}$
5. $n>\$ 90$
6. $k \geq 14$ miles
7. $b>750 \mathrm{ml}$
8. $j \leq 70 \%$
9. $f>40$ yards
10. $j \leq 32^{\circ} F$
