1. Potatoes go bad between three and five weeks, inclusive. Write an inequality to represent this.
2. The national weather service issues a drought warning if Utah receives less than 16 inches of snow in a winter. However, they must issue a flash flood warning if they Utah receives more than 100 inches of snow in a winter. Write an inequality to represent when they would have to send out a warning.
3. Mercury freezes at -38 degrees and boils at 674 degrees. a. Write an inequality to indicate when it is NOT in liquid form
b. Write an inequality to indicate when it IS in liquid form.
4. A man is considered "normal" if $18-22 \%$ of his bodyweight is fat. If a man weighs 170 lbs , write an inequality to represent how much of his weight is fat if he is in this normal range.
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9. You are buying 3 tickets to Lagoon. Depending on where you buy them they could end up costing as little as $\$ 113.85$, or as much as $\$ 176.85$. Write an inequality to represent the cost of each ticket.
10. A motorcycle gets 40 mpg in the city and 59 mpg on the highway.
a. Write an inequality to describe how many miles the motorcycle will run per gallon.
b. The motorcycle gas tank holds 7 gallons. How many miles can the car travel with a full tank of gas?
11. Danielle got $50,85,90$, and 95 on the standards on her last test. She plans to retake her lowest score. She wants to average at least a 90 . What could her retake score be?

| $30.6 \leq x \leq 37.4$ | $40 \leq x \leq 59$ | $37.95 \leq x \leq 58.95$ |
| :---: | :---: | :---: |
| $x \leq-38$ or $x \geq 674$ | $90 \leq x \leq 100$ | $x<16$ or $x>100$ |
| $3 \leq x \leq 5$ | $280 \leq x \leq 413$ | $-38<x<674$ |

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