

$$\min = \text{target} - \frac{1}{2} \text{tolerance}$$

$$\max = \text{target} + \frac{1}{2} \text{tolerance}$$

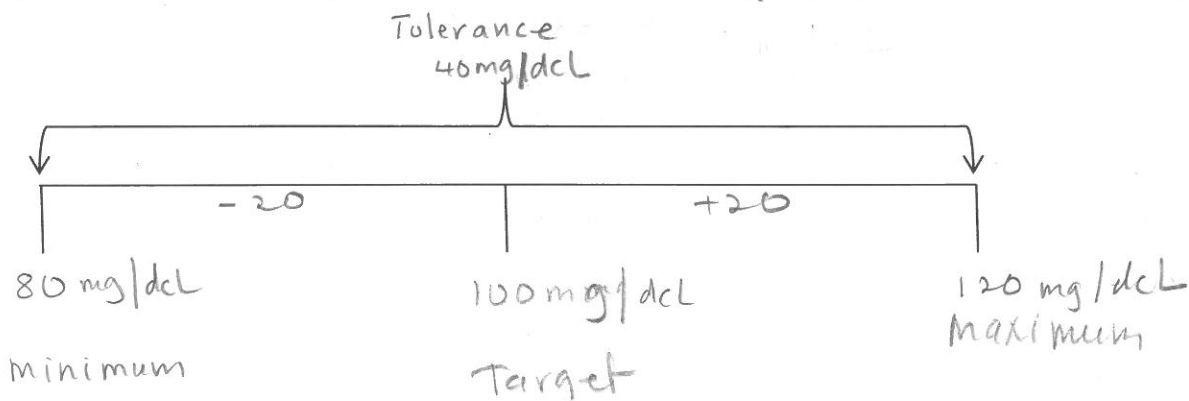
$$\text{Tolerance} = \max - \min$$

Example 2

A normal person's blood sugar level should be between 80 and 120 mg/dL.

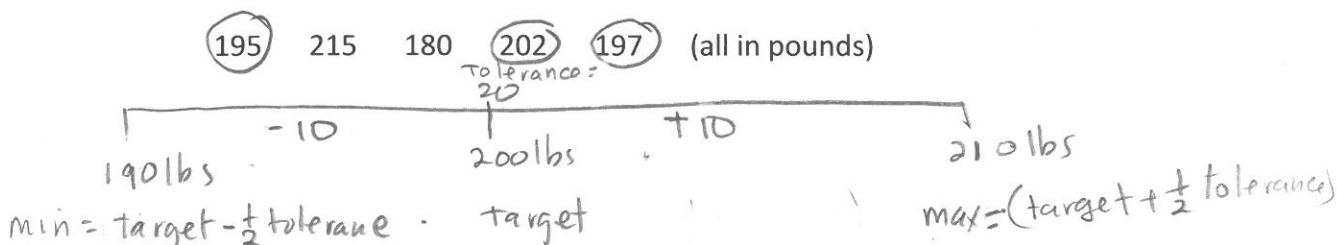
Record appropriate values on the diagram below:

$$\text{Tolerance} = \max - \min \Rightarrow 120 - 80 = 40 \text{ mg/dL}$$



Example 3

The target value of the weight load of a bungee cord is 200 pounds with a tolerance of 20 pounds. Circle which of the following weights of items this bungee cord could hold.



Example 4

Sylvester works at a machining shop. He is working with a machine part that has a tolerance of 0.02 mm and a desired length of 0.70 mm. State the maximum and minimum values of the machine part.

Maximum: 0.71 mm = $\text{target} + \frac{1}{2}(\text{tolerance}) = 0.70 + \frac{1}{2}(0.02) = 0.71$

Minimum: 0.69 mm = $\text{target} - \frac{1}{2}(\text{tolerance}) = 0.70 - \frac{1}{2}(0.02) = 0.69$

