

Lower fence: $\bar{x} - 2\frac{1}{2} \frac{\sigma}{\sqrt{n}}$

$$= 520 - 1.29 \times \frac{100}{\sqrt{25}}$$

$$= 520 - 1.29 \times \frac{100^2}{5}$$

$$= \frac{520 - 24}{496.2}$$

Higher fence: $\bar{x} + 2\frac{1}{2} \frac{\sigma}{\sqrt{n}}$

$$= 520 + 1.29 \times \frac{100}{\sqrt{25}}$$

$$= 520 + 1.29 \times \frac{100}{5}$$

$$= 520 + 25.8$$

$$= 545.8$$

