

Have to assume that the standard deviation is the same (6) for Safarun and Evertread. Then:

$$H_0: \mu = 45,000$$

$$H_1: \mu \neq 45,000$$

$$Z = \frac{\bar{x} - \mu}{\frac{\sigma}{\sqrt{n}}} = \frac{43,850 - 45,000}{\frac{8000}{\sqrt{25}}} = -0.72$$

$$-1.96 \leq -0.72 \leq 1.96$$

Thus, we fail to reject H_0 .

Thus, we can conclude from this sample, there isn't significant evidence against H_0 .

Thus, change to the cheaper tyres.