

ANSWER

The variable is quantitative, the concentration of mirex in farmed salmon; the sample size is 150.

- (a) The null hypothesis is that the concentration of mirex in farmed salmon is 0.08 ppm. $H_0: \mu = 0.08$.
- (b) The alternate hypothesis is that the concentration of mirex in farmed salmon is greater than 0.08 ppm. $H_a: \mu > 0.08$.
- (c) The z-value is

$$z = \frac{0.0913 - 0.08}{0.0495/\sqrt{150}} = 2.80.$$

- (d) The p -value is $p = 1 - 0.09974 = 0.0026 = 0.26\%$.
- (e) This is a very small p -value, well below a 5% or 1% cut off. So we reject the null hypothesis and conclude that the sample provides evidence that farmed salmon have unsafe mirex levels.