

Bellwork Algebra 2 Tuesday, May 27, 2014

1. Major League Baseball specifies that balls should weigh 9 ounces. A sample of balls showed that the mean weight was 9.04 ounces with a standard deviation of 0.08 ounces.

a) What percent of balls weigh more than 9.12 ounces?

16 %

b) What percent of balls weigh between 8.96 and 9.20 ounces?

81.5 %

c) What interval of weights contains 95% of the balls?

8.82 to 9.20

d) What percent of balls weigh less than 9.10 ounces?

$$z = \frac{9.10 - 9.04}{.08} = .75$$

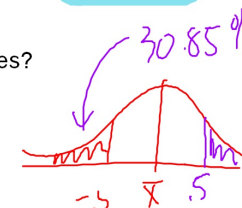
77.34%

e) What percent of balls weigh less than 9 ounces?

$$z = \frac{9 - 9.04}{0.08} = -.5$$

100 - 69.15

= 30.85%



f) If balls whose weight is more than 1% from the specified 9 ounces are rejected, what percent of balls are rejected?

$$26.43 + 5.16 = 31.59\%$$

$$1\% \text{ of } 903 = .09$$

$$(.01)(9) =$$



$$> 9.09$$

$$z = \frac{9.09 - 9.04}{.08} = .63$$

$$100 - 73.57 = 26.43\%$$

$$< 8.91$$

$$z = \frac{8.91 - 9.04}{0.08} = -1.63$$

$$100 - 94.84 = 5.16\%$$