ch 6.2 review worksheet

c= confidence interval

1. Find the critical value z_c that corresponds to a 90% confidence level.

2. Find the critical value z_c that corresponds to a 98% confidence level.

3. Find the critical value z_c that corresponds to a 94% confidence level.

4. A random sample of 50 students has a test score with a standard deviation of 10.2. Find the maximum error of estimate if $c = 0.90$.

5. A random sample of 40 students has a mean annual earnings of \$3120 and a standard deviation of \$677. Find the maximum error of estimate if $c = 0.95$.

6. A random sample of 40 students has a test score with $\bar{x} = 81.5$ and $s = 10.2$. Construct the confidence interval for the population mean, μ if $c = 0.90$.

7. A random sample of 40 students has a mean annual earnings of \$3120 and a standard deviation of \$677. Construct the confidence interval for the population mean, μ if $c = 0.95$.

8. A random sample of 56 fluorescent light bulbs has a mean life of 645 hours with a standard deviation of 31 hours. Construct a 95% confidence interval for the population mean.

Find the $\bar{x}$ and E for the following confidence inerval:

9. $34.2 < \mu < 50.2$

10. $8.10 < \mu < 11.30$

Use data set 7 on page 788 to create the following confidence intervals.

11. Create a 99% confidence interval for the age of the bears.

12. Create a 90% confidence interval for the weight of the bears.

13. Create a 95% confidence interval for the length of the bears.