Name_____Practice for confidence intervals for p hour 1 2 3 4 5 6 7 Date 1-9-17

Useful Formulas

(p -E, p +E) p -E < p <p +E p $\pm$ E $E = z_{\frac{\alpha}{2}}\sqrt{\frac{pq}{n}}$ OR $E = CV\sqrt{\frac{pq}{n}}$

$n=\frac{\left(z_{\frac{\alpha}{2}}\right)^2 pq}{E^2}=\frac{(CV)^2 pq}{E^2}$ $n=\frac{\left(z_{\frac{\alpha}{2}}\right)^2 \cdot 0.25}{E^2}=\frac{(CV)^2 \cdot 0.25}{E^2}$

1. (12, 26) is given as a confidence interval for p

State p State E

Missing confidence interval #1 Missing confidence interval #2

2. 18 < p < 44 is given as a confidence interval for p

State p State E

Missing confidence interval #1 Missing confidence interval #2

3. 120 $\pm$ 32 is given as a confidence interval for p

State p State E

Missing confidence interval #1 Missing confidence interval #2

4. Given n = 500, x = 350, Confidence level 99%

p q

CV E

Tolerance Notation Confidence Interval Interval Notation Confidence Interval

5. Given n = 500, x = 475, Confidence level 65%

p q

CV E

Tolerance Notation Confidence Interval Interval Notation Confidence Interval

6. Sample size is 1000 of which 654 are successes Confidence level 90%

p q

CV E

Tolerance Notation Confidence Interval Interval Notation Confidence Interval

7. Sample size is 1000 of which 312 are failures Confidence level 95%

p q

CV E

Tolerance Notation Confidence Interval Interval Notation Confidence Interval

8. Margin of Error = 0.125 confidence level 90% p and q are unknown N = _____	9. Margin of Error = 0.028 confidence level 99% p is estimated from a prior study to be approximately 42% N = _____	10. Margin of Error: nine percentage points, confidence level 95%, and q from a prior study is known to be 53% N = _____

Textbook Resources Read pp320-330 Additional Practice is available in the Green textbook on page 333 #1-28

Function Notation and Operations

Use the following functions to perform the following mathematics problems $f(x) = 2x + 6$ $g(x) = x^2 + 2$

Answers must be in simplest form to receive full credit

1. $(f+g)(x) =$ _____
2. $(f-g)(x) =$ _____
3. $(fg)(x) =$ _____
4. $\left(\frac{g}{f}\right)(x) =$ _____ State any domain restrictions _____

Evaluate each of the following

5. $(f+g)(4) =$ _____
6. $(f-g)(-5) =$ _____
7. $f(g(3)) =$ _____
8. $g(f(3)) =$ _____