# Lesson 11.2 Practice: Testing a Claim about a Proportion

School Launch · Statistics · Unit 11: Significance Tests · Worksheet A

Calculator / tables

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

**1.** Test $H_0 : p = 0.3$ vs $H_a : p \neq 0.3$ with 25 successes in 106 trials. Find $z$ (two decimals) and the P-value (four decimals). EASY

**2.** Test $H_0 : p = 0.4$ vs $H_a : p \neq 0.4$ with 106 successes in 308 trials. Find $z$ (two decimals) and the P-value (four decimals). EASY

**3.** Test $H_0 : p = 0.3$ vs $H_a : p \neq 0.3$ with 47 successes in 133 trials. Find $z$ (two decimals) and the P-value (four decimals). EASY

**4.** Test $H_0 : p = 0.4$ vs $H_a : p \neq 0.4$ with 180 successes in 396 trials. Find $z$ (two decimals) and the P-value (four decimals). MEDIUM

**5.** Test $H_0 : p = 0.4$ vs $H_a : p \neq 0.4$ with 214 successes in 486 trials. Find $z$ (two decimals) and the P-value (four decimals). MEDIUM

**6.** Test $H_0 : p = 0.4$ vs $H_a : p \neq 0.4$ with 42 successes in 101 trials. Find $z$ (two decimals) and the P-value (four decimals). MEDIUM

**7.** Test $H_0 : p = 0.3$ vs $H_a : p \neq 0.3$ with 139 successes in 395 trials. Find $z$ (two decimals) and the P-value (four decimals). MEDIUM

**8.** Test $H_0 : p = 0.3$ vs $H_a : p \neq 0.3$ with 294 successes in 778 trials. Find $z$ (two decimals) and the P-value (four decimals). HARD

**9.** Test $H_0 : p = 0.6$ vs $H_a : p \neq 0.6$ with 341 successes in 599 trials. Find $z$ (two decimals) and the P-value (four decimals). HARD

**10.** Test $H_0 : p = 0.4$ vs $H_a : p \neq 0.4$ with 207 successes in 463 trials. Find $z$ (two decimals) and the P-value (four decimals). HARD