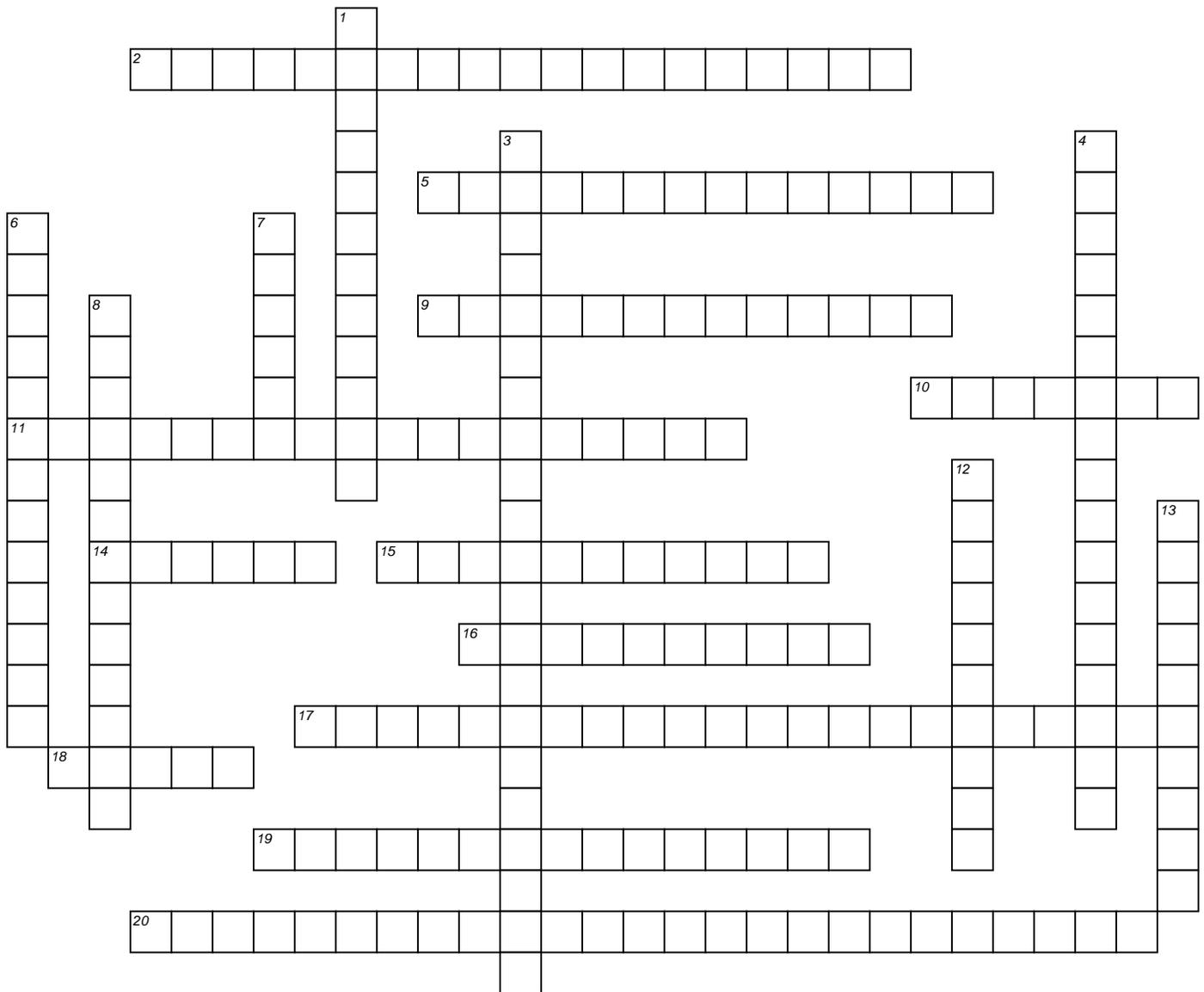# Inferences About Proportions
## *Advanced Placement Statistics*

Stats: Modeling the World, Chapters 18-22

**ACROSS**

**2** states that the sampling distribution model of the sample mean (and proportion) is approximately Normal for large n, regardless of the distribution of the population, as long as the observations are independent

**5** claim that specifies a value for some population parameter that can form the basis for assuming a sampling distribution for a test statistic

**9** extent of the interval on either side of the observed statistic value

**10** combining groups when we have data from different sources that we believe are homogeneous

**11** an interval of values usually of the form estimate ± margin of error

**14** decision made when the p-value is too small to believe that the statistic could have occurred due to chance variation

**15** error of failing to reject a null hypothesis when in fact it is false (also called a "false positive")

**16** error of rejecting a null hypothesis when in fact it is true (also called a "false positive")

**17** confidence interval for the true value of a proportion

**18** probability that a hypothesis test will correctly reject a false null hypothesis

**19** proportion of all samples of size n that will produce a statistic within a corresponding margin of error of the true parameter

**20** shows the behavior of the statistic over all the possible samples for the same size n

**DOWN**

**1** decision made when the p-value is large enough to believe that the statistic could have occurred due to chance variation

**3** proposes what we should conclude if we find the null hypothesis to be unlikely

**4** alpha level

**6** number of standard errors to move away from the mean of the sampling distribution to correspond to the specified level of confidence

**7** the probability of observing a value for a test statistic at least as far from the hypothesized value as the statistic actually observed if the null hypothesis is true

**8** when we estimate the standard deviation of a sampling distribution using statistics found from the data

**12** number of successes out of a whole

**13** threshold P-value that determines when we reject a null hypothesis