

## Choosing the correct inference procedure

The table below lists the different inference procedures you should know for the AP exam. In each of the scenarios below, choose the correct inference procedure.

One-sample $z$ interval for $p$	One-sample $z$ test for $p$
One-sample $t$ interval for $\mu$ , including paired data	One-sample $t$ test for $\mu$ , including paired data
Two-sample $z$ interval for $p_1 - p_2$	Two-sample $z$ test for $p_1 - p_2$
Two-sample $t$ interval for $\mu_1 - \mu_2$	Two-sample $t$ test for $\mu_1 - \mu_2$
$t$ interval for the slope of a least-squares regression line	$t$ test for the slope of a least-squares regression line
Chi-square test for goodness-of-fit	
Chi-square test for homogeneity	
Chi-square test for association/independence	

1. Which brand of AA batteries last longer—Duracell or Eveready?
2. According to a recent survey, a typical teenager has 38 contacts stored in his/her cellphone. Is this true at your school?
3. What percent of students at your school have a MySpace page?
4. Is there a relationship between the age of a student's car and the mileage reading on the odometer at a large university?
5. Is there a relationship between students' favorite academic subject and preferred type of music at a large high school?
6. Who is more likely to own an iPod—middle school girls or middle school boys?
7. How long do teens typically spend brushing their teeth?
8. Are the colors equally distributed in Fruit Loops?
9. Which brand of razor gives a closer shave? To answer this question, researchers recruited 25 men to shave one side of their face with Razor A and the other side with Razor B.
10. How much more effective is exercise and drug treatment than drug treatment alone at reducing the incidence of heart attacks among men aged 65 and older?

Web resource for more problems like these:

[www.ltcconline.net/green/java/Statistics/StatsMatch/StatsMatch.htm](http://www.ltcconline.net/green/java/Statistics/StatsMatch/StatsMatch.htm)