

The Class Picnic

Finding Percents of Numbers

Luis volunteered to work with his class Picnic Committee. Solve the following percent problems related to the picnic.

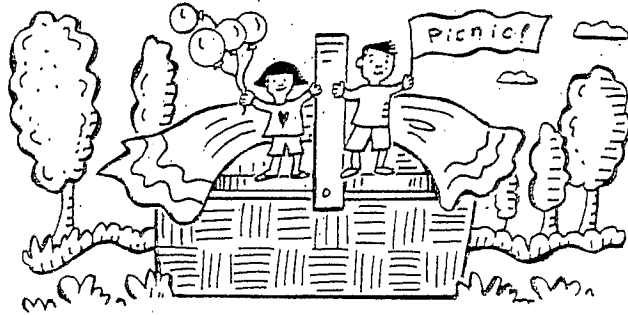
1 Based on the attendance at past picnics, Luis expects 95% of the students in his class to attend this year's picnic. If 120 students are in the class, how many students are likely to attend the picnic?

2 When polled to find out if they preferred hamburgers or hot dogs, all 120 students in the class responded. Sixty-five percent said they preferred hamburgers, while the rest preferred hot dogs. The Picnic Committee decided to order 2 hamburgers or 2 hot dogs for each student, based on the students' choices. How many hamburgers were ordered?

How many hot dogs were ordered? _____

3 When asked if they preferred cake or ice cream for dessert, all 120 students answered. Only 25% said they preferred cake, while the rest preferred ice cream. How many students preferred cake?

Those who preferred ice cream were given a choice of vanilla or chocolate. Sixty percent preferred chocolate, 10% had no preference, and the rest preferred vanilla. How many preferred chocolate?



How many preferred vanilla? _____

How many had no preference? _____

4 When asked if they preferred fruit juice or spring water, all 120 students answered. Fifty-five percent preferred juice, and 45% preferred spring water. The committee decided to order the equivalent of 3 cups of juice for each student who preferred juice. How many gallons of juice should the committee order? (16 cups equal 1 gallon.)

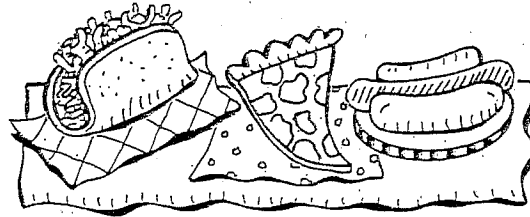
The committee decided to order 2 bottles of spring water for each student who preferred water. How many bottles should they order?

5 After the picnic, Luis conducted a poll to find out how many students enjoyed the picnic. Of the 104 students who responded, 25% rated it excellent, 60% rated it good, 15% rated it fair, and 4% rated it poor. Luis was pleased with these results, but his teacher said that the numbers could not be correct. Why not? Explain your answer on the back of this page.

Numbers by Many Names

Relating Fractions,
Decimals, and
Percents

Kerri and her friends at Morgan Middle School have found that fractions, decimals, and percents are closely related. Solve the following problems that show how the students use these numbers each day.



1 Some school lunches are more popular than others at Morgan Middle School. When hot dogs are served, $\frac{2}{3}$ of the students buy their lunch at school. When tacos are served, 36% of the students buy lunch. When pizza is served, 1.5 times as many students buy lunch than when tacos are served. If 650 students attend Morgan Middle School, how many order hot dogs for lunch?

How many order tacos? _____

How many order pizza? _____

2 On their last math quiz, Taylor got 3 out of 4 problems correct. Roberto got 70% of the problems correct. Cara got three quarters of the problems right. Of the 25 problems on the quiz, Kerri had 5 mistakes. Whose score was the highest?

Whose score was the lowest? _____

Which two students had the same score? _____

3 Kerri plays the flute in the Morgan Advanced Band. Flute players make up 25% of the advanced band. The number of students who are taking beginner flute

lessons is 1.75 times the number of flute players in the advanced band. (Beginner flute students are not members of the advanced band yet.) If the advanced band has 96 students, how many currently play the flute in the advanced band?

How many students are taking beginner flute lessons?

4 Kerri's middle school has 650 students. The elementary school Kerri attended has 76% as many students as her middle school, and the high school in her town has 2.3 times as many students as her middle school. How many students attend Kerri's elementary school?

How many attend the high school?

5 Kerri's class had to find 25% of 24. Kerri changed 25% to 0.25 and multiplied by 24. Samantha, the math whiz, said that a shortcut to solve this problem was simply to divide 24 by 4. Can Samantha possibly be right? Explain your answer on the back of this page.