Name_____ Date_____

Math – Fractions and Percentages

Do you remember what percent means? It means part of 100. So, percentages are actually fractions. 50 percent means 50 parts of 100 or $^{50}/_{100.}$ In this fraction, 50 is the **numerator** and 100 is the **denominator**. But fifty hundredths is quite a mouthful, so we need to **simplify** the fraction. We do that by finding a **common factor** of the numerator and the denominator. That just means a number that can divide into both the numerator and the denominator without leaving a remainder. Let's see, 50 goes into 50 once and 50 goes into 100 twice, so $^{50}/_{100}$ means the same as ½. Can you do the same with 25 percent?

Here is the answer, were you correct?
25 percent = 25 parts of 100 = $^{25}/_{100}$ (25 ÷ 25 = 1 and 100 ÷ 25 = 4) = $^{1}/_{4}$

Of course, 27 percent, for example, would have to stay $^{27}/_{100}$ because there is no number that can be divided evenly into 27 and into 100.

Writing a percentage as a fraction is quite easy, isn't it? What about writing a fraction as a percentage? There are a number of ways to do this, the easiest way is to divide 100 by the denominator of the fraction you want to show as a percentage. This is how you find the percent of ½: 100 ÷ 2 = 50%. Shall we do a couple more? The percent of $^{1}/_{4}$ is 100 ÷ 4 = 25% and the percent of $^{1}/_{20}$ is 100 ÷ 20 = 5%.

What about ¾? When the numerator is more than 1, you have to multiply your answer by the amount of the numerator. So, for ¾ the calculation would be 100 ÷ 4 = 25 x 3 = 75% and $^{4}/_{5}$ would be: 100 ÷ 5 = 20 x 4 = 80%. Let's try one more: ⅔ as a percent would be 100 ÷ 3 = 33⅓ x 2 = 66⅔%. Got it?

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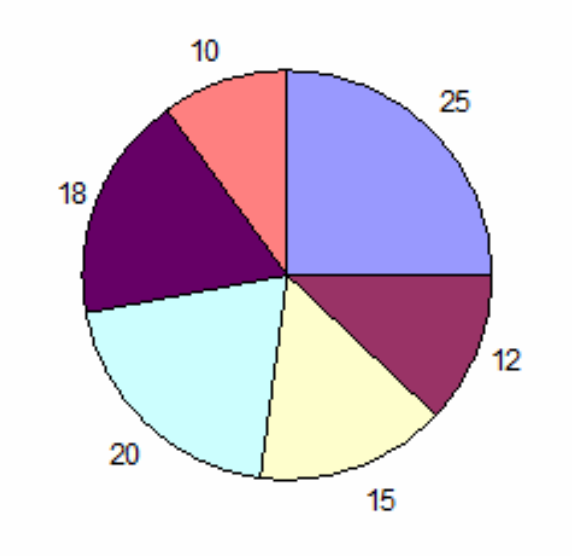
Math – Fractions and Percentages Questions

A: A percentage of the pie.

The diagram is called a pie chart, which is a kind of graph. Each colored area is a percentage of the whole (100%). Write down the percentages and then see if you can change them into fractions. Don't forget to simplify the fractions where you can.



B: Fractions to percentages

Your teacher has just finished marking your tests. Can you help her work out what percentage each child got? The first one has been done for you.

1. In his English test, Tommy got 4 out of 5. $^{4}/_{5}$ = 100 ÷ 5 = 20 x 4 = 80%.
2. For math Judy go 9 out of 10.
3. In her spelling test, Mary only managed to get 5 out of 20.
4. Bill did very well in his history exam; he got 24 out of 25.
5. For Life Skills Tim scored 35 out of 50.
6. Jane likes science; she got 3 out of her 4 projects correct.
7. And you did best of all, in geography you scored 20 out of 20.

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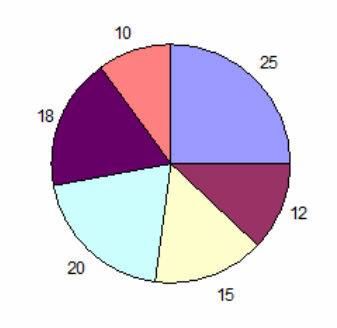
Math – Fractions and Percentages Answers

Activity A



1. 25% = $^{25}/_{100}$ = $^{1}/_{4}$
2. 12% = $^{12}/_{100}$ = $^{3}/_{25}$
3. 15% = $^{15}/_{100}$ = $^{3}/_{20}$
4. 20% = $^{20}/_{100}$ = $^{1}/_{5}$
5. 18% = $^{18}/_{100}$ = $^{9}/_{50}$
6. 10% = $^{10}/_{100}$ = $^{1}/_{10}$

Activity B

1. $^{4}/_{5}$ = 100 ÷ 5 = 20 x 4 = 80%.
2. $^{9}/_{10}$ = 100 ÷ 10 = 10 x 9 = 90%
3. $^{5}/_{20}$ = 100 ÷ 20 = 5 x 5 = 25%
4. $^{24}/_{25}$ = 100 ÷ 25 = 4 x 24 = 96%
5. $^{35}/_{50}$ = 100 ÷ 50 = 2 x 35 = 70%
6. $^{3}/_{4}$ = 100 ÷ 4 = 25 x 3 = 75%
7. $^{20}/_{20}$ = 100 ÷ 20 = 5 x 20 = 100%