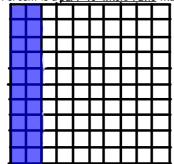
What is percent?

- Percent is a part-to-whole ratio that compares a number to 100.

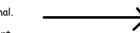


What does this symbol mean %2

This hundred square (hundred squares) is an example of a part-to-whole ratio. The ratio of blue squares to all squares in ratio form is 20:100, while in fraction form it is 20:100.

- Percent means "out of 100" or "per 100". Therefore, the amount of blue squares colored in the hundred square above is 20%.

- A percent can always be written as a decimal.



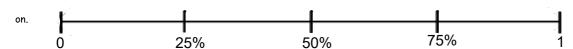
32% is the same as 0.32 (32 hundredths or $\frac{32}{100}$)

- A decimal can always be written as a percent.

- There is also a relationship between percent, corresponding decimals and ratios. For example: 60% is the same as 0.60 and 60:100 ($\underline{60}$).

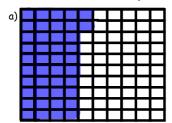
- When talking about percent, you already know a few common ratios and fractions and there percentage value. For example: $\frac{1}{4}$ is 25%,

 $\frac{2}{4}$ is 50%, $\frac{3}{4}$ is 75% and $\frac{4}{4}$ is 100%. Another way to look at it is to think of it as quarters. 1 quarter is 0.25¢, 2 quarters is 0.50¢ and so

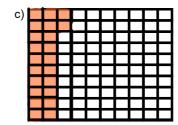


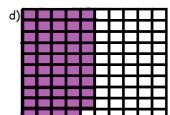
Percent Questions:

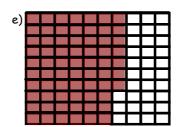
1. Provide the decimal and percent of the shaded part?

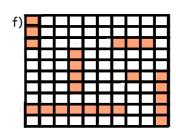






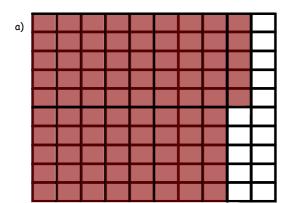


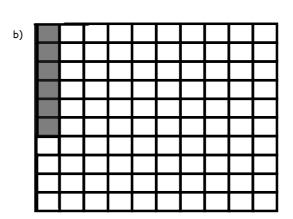




- 2a) Using the diagrams in question 1, write the decimal and percent for the unshaded part.
- b) Add both the shaded part to the unshaded part for each letter in question 1. What do you notice?
- 3) Write the fraction that corresponds to the following percentages.
- a) 38%
- b) 58%
- c) 71%
- d) 2%
- e) 100%
- 4) Write the decimal that corresponds to the following percentages.
- a) 27%
- b) 8%
- c) 95%
- d) 73%
- e) 44%
- 5) Write the following as a percent.
- a) 10 out of 100
- - d) 12 out of 100 b) <u>41</u> c) <u>86</u>
 - 100

- 5. Write the percent for each of the following.
- a) 0.04 b) 0.79 c) 0.64 d) 0.01
- 6. Write the decimal and percent of the $\underline{\text{unshaded}}$ part of the hundreds chart.





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Relating Fractions, Decimals, and Percents

There are 3 ways to describe "parts of a whole".

- 1) Fractions
- 2) Decimals
- 3) Percents

Parts of a Fraction: <u>2</u> — numerator 5 — denominator

What happens if I am given a fraction that does not have a denominator of 100 and I need to find the percentage?

If you are given a fraction and the denominator is not 100, you are going to do the following:

1. You are going to look at your denominator and see if you can multiply it by anything to get to 100.

Example: $\frac{3}{5}$

In this example, the denominator is 5. Well, we know that to make this 5 turn to 100, we need to multiply it by 20.



So, if we multiply our denominator by 20, we also need to multiply our numerator by 20 to help keep the fraction equivalent. When we multiply the numerator by 20, we get 60.

Now that we have our new numerator and denominator, we can now easily provide the percent and decimal.

The percent for this example would be 60%.

The decimal for this example would be 0.60

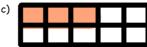
- 1. Turn each fraction into a percent and decimal.
- a) <u>12</u> 25
- b) <u>40</u> 50
- c) $\frac{3}{20}$
- d) 92 100
- 2. Find the percent and fraction for the following decimals.
- a) 0.2
- b) 0.56
- c) 0.07
- d) 0.34
- 3. Find the decimal and fraction for each percent.
- a) 64%
- b) 1%
- c) 81%
- d) 90%
- 4. Determine the percent of the unshaded part of the object.











- 5. Identify which represents the least? The greatest?
- 0.07
- 70%
- 6. Tori found 30 out 50 items on her scavenger hunt list.

Jerry found 65% of the items on his scavenger hunt list.

Who found the most items?

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