

68 & 69

1/14

Before Lesson TO DO List:

1. Get your homework and make sure your name is on it.
2. Write the *homework* in your agenda.
3. Fill in table of contents

wksht.

p.68&69 L:25 Module 1 A Fraction  
as a Percent

## **Lesson 25: A Fraction as a Percent**

### **Your Outcome**

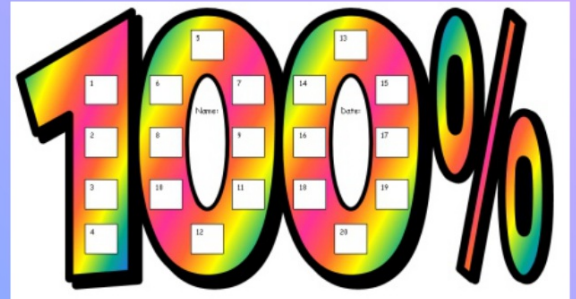
**You will write a fraction and a decimal as a percent of a whole quantity and write percent of a whole quantity as a fraction.**



# Percents

$$75\% = \frac{75}{100} = \frac{75}{100} \div \frac{25}{25} = \frac{3}{4}$$

$$\text{So, } 75\% = \frac{3}{4}$$



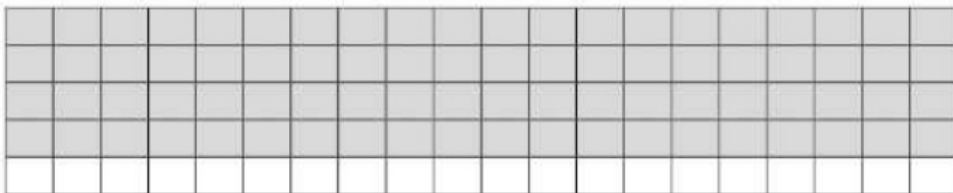
A survey was taken that asked participants whether or not they were happy with their job. An overall score was given. 300 of the participants were unhappy while 700 of the participants were happy with their job. Give a part-to-whole ratio for comparing happy participants to the whole. Then write a part-to-whole ratio of the unhappy participants to the whole. What percent were happy with their job, and what percent were unhappy with their job?

Happy \_\_\_\_\_ Unhappy \_\_\_\_\_  
 Ratio                      Percent                      Ratio                      Percent

Create a model to justify your answer.



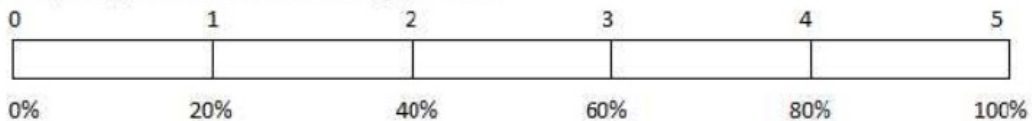
Renita claims that a score of 80% is the same as the fraction  $\frac{4}{5}$ . She drew the following picture in order to support her claim.



Is Renita correct? \_\_\_\_\_ Why or why not?

**Exercise 2**

Use the tape diagram to answer the following questions.



80% is what fraction of the whole quantity?

$\frac{1}{5}$  is what percent of the whole quantity?

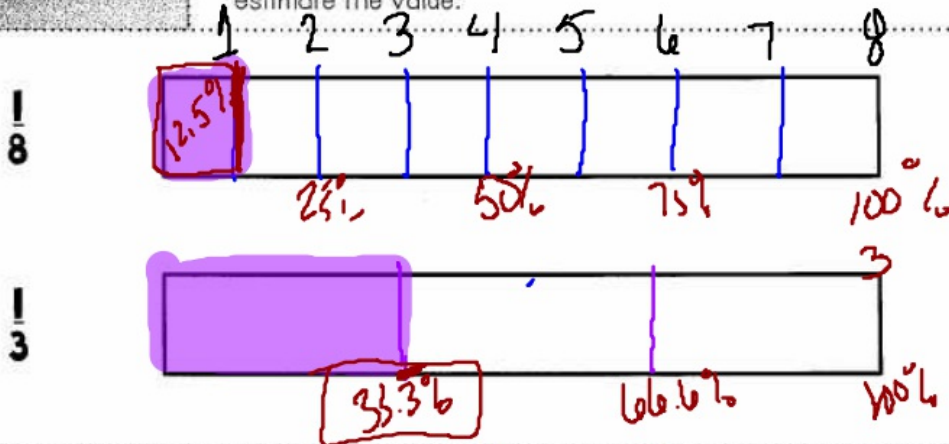
50% is what fraction of the whole quantity?

1 is what percent of the whole quantity?

<p>Change a % percent to a fraction</p> $\frac{a}{b}$	<p>20% ↓ 20/100 ↓ 1/5</p>	<p>Rewrite the % over 100 and simplify.</p>
<p>Change a fraction to a decimal</p>	<p>1/5 1 ÷ 5 0.2</p>	<p>Divide the numerator by the denominator.</p>
<p>Change a decimal to a percent</p>	<p>0.25 25%</p>	<p>Move the decimal 2 places to the right. × 100 Add a % sign.</p>
<p>Change % to a dec.</p>	<p>25% .25</p>	<p>drop the % sign Move dec. point 2 places to the left</p>

**STRIP DIAGRAMS & NUMBER LINES**

- Divide the strip or number line into the same number of sections as the denominator
- Shade the number of parts indicated by the numerator and estimate the value.



**CONVERTING FRACTIONS TO DECIMALS**

- A fraction can be Converted to a decimal by dividing the numerator by the denominator.
- Ex:  $\frac{3}{4} = 0.75$      $3 \div 4$

**CONVERTING DECIMALS TO PERCENTS**

- A decimal can be converted to a percent by X by 100, or moving the decimal 2 places to the right.
- Ex:  $0.85 = 85\%$      $0.7 = 70\%$      $1.25 = 125\%$

Convert each fraction below to the decimal and percent equivalent.

1. $\frac{3}{8}$ 3 ÷ 8 decimal: <u>0.375</u> %: <u>37.5%</u>	2. $\frac{1}{25}$ decimal: _____ %: _____	3. $1\frac{4}{5}$ 4 ÷ 5 decimal: <u>1.8</u> %: <u>180%</u>	4. $2\frac{1}{3}$ decimal: _____ %: _____	5. $\frac{7}{8}$ 7 ÷ 8 decimal: <u>0.875</u> %: <u>87.5%</u>
---	---	---	---	---

Summarize today's lesson:

## FRACTIONS, DECIMALS, AND PERCENTS

Practice making two equivalent fractions for each of the fractions below.

$$\frac{6}{9} = \frac{2}{3} = \frac{24}{36}$$

$$\frac{8}{10} = \frac{4}{5} = \frac{24}{30}$$

$$\frac{5}{4} = \frac{10}{8} = \frac{500}{400}$$

How do the fractions you wrote compare to the original fraction?

*Equiv. fractions represent the same value.*

### CONVERTING FRACTIONS TO PERCENTS

- A fraction can be written as a percent when the denominator is 100.
- If the denominator is a friendly number, you can Scale up or down or use a proportions

Convert each fraction below so that the denominator is 100.

$$\frac{6}{20} = \frac{30}{100}$$

$$\frac{7}{10} = \frac{70}{100}$$

$$\frac{3}{4} = \frac{75}{100}$$

Complete the tables below.

FRACTION	$\times$ 100	PERCENT
$\frac{3}{25}$	$\frac{12}{100}$	12%
$\frac{35}{50}$	$\frac{70}{100}$	70%
$\frac{19}{20}$	$\frac{95}{100}$	95%

FRACTION	$\times$ 100	PERCENT
$\frac{8}{25}$		
$\frac{60}{50}$		
$\frac{13}{20}$		

If it can also be more complex. What about one-eighth?

~~$$\frac{1}{8} = \frac{x}{100}$$~~

$$8x = 100$$

$$8x = 100$$

$$100 \div 8 = 12.5$$

$$x = 12.5$$

$$12.5\%$$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Converting Ratios, Percent, Decimals and Fractions

Directions: Fill in the missing boxes in the following rows and columns.

Ratio	Percent	Decimal	Fraction (Original and Simplified)
	34.5%		
		0.24	
23:100			
45 to 50			
			$\frac{7}{25}$
		0.917	
	67.4%		





