

dec 16, 2020

Lesson 11: Understanding Percents

↳ equivalent to decimals and fractions $\frac{1}{2} = 0.5 = 50\%$

Recall:

Equivalency between Fractions and decimals:

$$\frac{33 \times 2}{50 \times 2} = 0.66 \qquad \frac{66}{100}$$

$$\frac{23 \times 4}{25 \times 4} = \frac{92}{100} = 0.92$$

Recall: Ramsie got 40 out of 50 on the test. What's his %.

$$\% = \frac{\text{your mark}}{\text{total mark}} \times 100\% = \frac{40}{50} \times 100\% = 80\%$$

$$\% = \frac{40 \times 2}{50 \times 2} \times 100\% = \frac{80}{100} \times 100\% = 80\%$$

"percent"
/ 100

$$\frac{0.80}{1} \times \frac{100}{100} = \frac{80}{100} = 80\%$$

Finding the Percent

What percentage of the shape is green?



Write your answer using a percent sign (%).

$$\frac{4}{10} \times 100\%$$

$$40\%$$

step i. construct
a fraction or decimal. $\frac{\text{part}}{\text{whole}}$

step ii. Times by
100%

I. Change the following decimals to percents. Try using the procedure outlined before.

a) 0.17

b) 0.6225

$$0.\underline{17} \times \underline{100}\%$$

$$17\%$$

→ step i. construct
a fraction or decimal. $\frac{\text{part}}{\text{whole}}$

→ step ii. Times by
100%

Do first handout
in Lesson 11 folder

1. Convert each of the fractions below to a percent.

b) $\frac{18}{25} \times 100\%$

$\underbrace{\hspace{1.5cm}}$

\downarrow don't put this symbol in cal.

$0.72 \times 100\%$

$\underbrace{\hspace{1.5cm}}$

72%

step i: construct
a fraction $\frac{\text{part}}{\text{whole}}$
or decimal.

step ii: Times by
100%

1. Change the following decimals to percents. Try using the procedure outlined before.

$$d) \underbrace{0.005}_{\text{part}} \times 100 \% \downarrow$$

$$0.5 \%$$

step i. construct a fraction or decimal. $\frac{\text{part}}{\text{whole}}$

step ii. Times by 100%

Player	Batting average	% of hits
Lucky Luke	0.325	

$$\underbrace{0.325}_{\text{part}} \times 100 \% \downarrow$$

$$32.5 \%$$

step i. construct a fraction or decimal. $\frac{\text{part}}{\text{whole}}$

step ii. Times by 100%

Converting Percents to Decimals / Fractions

e.x How do you write 20% as a fraction?

20 %
 20 percent
 $\frac{20}{100}$ ✓

$\frac{2}{10}$ $\frac{\%}{\%}$ 2
 $\frac{1}{5}$ ✓

step i: Read %
 put divide "per"
 put 100 "cent"

step ii: Simplify by canceling out zeros and dividing a

G.C.D. $\frac{20 + x}{100}$
 not allowed cuz 2 terms

0.5

What's the fraction of 2.5%
 0.25

$\frac{2.5}{100}$ $\frac{\%}{\%}$ 5

$\frac{5}{20}$ $\frac{\%}{\%}$ 5

$\frac{1}{4}$

step i: Read %
 put divide "per"
 put 100 "cent"

step ii: Simplify by canceling out zeros and dividing a

G.C.D.
 5
 5
 (same)

200% as a decimal 2.00

$$\frac{200}{100}$$

$$\frac{2}{1}$$

$$2$$

230% as a decimal 2.3

$$\frac{230}{100}$$

$$\frac{23}{10}$$

$$2.3 \cdot \frac{10}{10}$$

$$2.3$$

0.36% as a decimal

$$\frac{0.36}{100} = 0.0036$$

$$0.0036 \cdot \frac{100}{100}$$

$$0.0036$$

Do 2nd
handout and
1xL N.2