

Percents

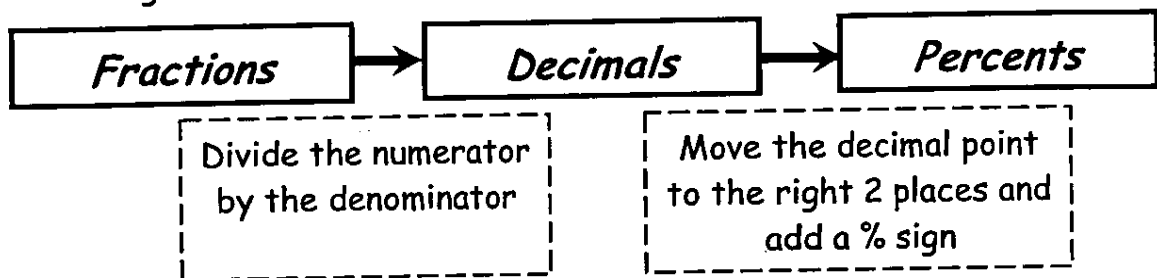
Understanding Percent:

- A percent is one way to represent a part of a whole
- "Percent" means "per 100"
- A percent can have a decimal
- A percent can be more than 100
- A percent can be less than 1
- A percent can have a fraction

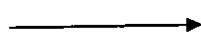
Changing between Percents, Decimals, and Fractions:

- All three formats can be used to represent the same amount
- To change a fraction directly to a percent, multiply the fraction by 100
- To change a whole percent directly to a fraction, put the value to the right of the decimal over 100 and then reduce the fraction

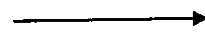
To change between formats...



$$\frac{3}{4}$$



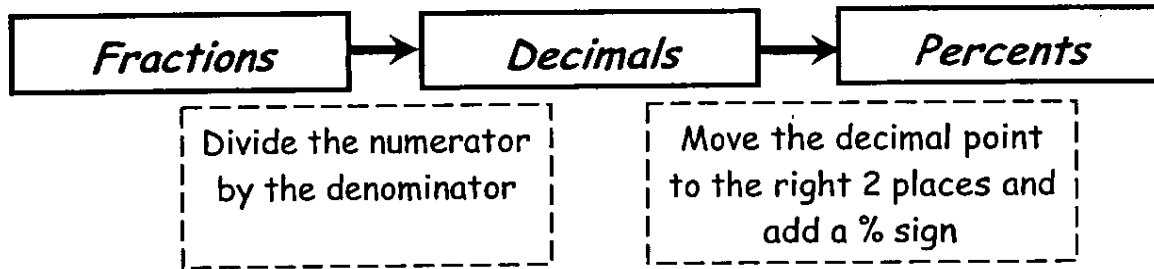
$$0.75$$



$$75\%$$

$$\begin{array}{r}
 0.75 \\
 4 \overline{) 3.00} \\
 \underline{-2.8} \\
 20 \\
 \underline{-20} \\
 0
 \end{array}$$

$$0.\overbrace{75} $$



$$\frac{5}{8} \longrightarrow 0.625 \longrightarrow 62.5\%$$

$$\begin{array}{r} 0.625 \\ 8 \overline{) 5.000} \\ \underline{-48} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

$$0.625 \xrightarrow{\text{move 2 places}} 62.5$$

$$2\frac{3}{5} \longrightarrow 2.6 \longrightarrow 260\%$$

$$\begin{array}{r} 0.6 \\ 5 \overline{) 3.0} \\ \underline{-30} \\ 0 \end{array}$$

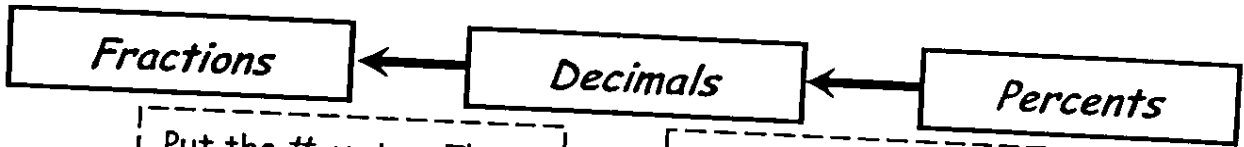
$$2.60 \xrightarrow{\text{move 2 places}} 260$$

$$\frac{7}{400} \longrightarrow 0.0175 \longrightarrow 1.75\%$$

$$\begin{array}{r} 0.0175 \\ 400 \overline{) 7.0000} \\ \underline{-400} \\ 3000 \\ \underline{-2800} \\ 2000 \\ \underline{-2000} \\ 0 \end{array}$$

$$0.0175 \xrightarrow{\text{move 2 places}} 1.75$$

To go the other direction...



Put the # on top. The # on the bottom will represent the appropriate place value...10, 100, 1000. Reduce to lowest terms

Move the decimal point to the left 2 places and drop the % sign

$$\frac{1}{2} \longleftarrow 0.50 \longleftarrow 50\%$$

$$\frac{50}{100} = \frac{5}{10} = \frac{1}{2}$$



$$1 \frac{19}{50} \longleftarrow 1.38 \longleftarrow 138\%$$

$$\frac{38}{100} = \frac{19}{50}$$



$$\frac{3}{400} \longleftarrow 0.0075 \longleftarrow 0.75\% \longleftarrow \frac{3}{4}\%$$

$$\frac{75}{10000} = \frac{3}{400}$$



DEV 085 Practice Problems - Unit 3 - Decimals/Percents/Proportions

Answers to Changing Between Fractions, Decimals, and Percents
(Round decimal values to the nearest thousandth when needed and
round percents to the nearest tenth as needed)

	Fractions	Decimals	Percents
1)	$\frac{2}{5}$	0.4	40%
2)	$\frac{5}{9}$	0.556	55.6%
3)	$5\frac{7}{8}$	5.875	587.5%
4)	$\frac{17}{20}$	0.85	85%
5)	$3\frac{31}{50}$	3.62	362%
6)	$\frac{1}{40}$	0.025	2.5%
7)	$\frac{13}{20}$	0.65	65%
8)	$\frac{8}{25}$	0.32	32%
9)	$1\frac{7}{50}$	1.14	114%
10)	$\frac{1}{200}$	0.005	0.5%

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Decimals/Percents/Proportions

Changing Between Fractions, Decimals, and Percents
(Round decimal values to the nearest thousandth when needed and
round percents to the nearest tenth as needed)

	Fractions	Decimals	Percents
1)	$\frac{2}{5}$		
2)	$\frac{5}{9}$		
3)	$5\frac{7}{8}$		
4)		0.85	
5)		3.62	
6)		0.025	
7)			65%
8)			32%
9)			114%
10)			.5%