NOTES (Conversions) Name_____
No calculator( fraction/decimal/%)

Given a fraction, change it to a percent.

Example:

$\frac{3}{10}$ → Think "how many parts out of 100 ?"

$\frac{3}{10} = \frac{\times 10}{\times 10}\ \frac{\square}{100}$ $\square = 30$ → 30 %

$\frac{5}{10}$ → Think "Can the fraction be put in lowest terms?"

$\frac{5}{10} = \frac{1}{2}$ → 50 %

$\frac{1}{4}$ → Think "Do I have this one memorized?

25 %

$\frac{37}{100}$ → Think " There's no work to this one - The number on top of the 100 is the percent 37 %

PRACTICE Change these fractions to percents

| | | |
|---|---|---|
| $\frac{13}{100} =$ | $\frac{8}{25} =$ | $\frac{3}{20} =$ |
| $\frac{1}{5} =$ | $\frac{2}{3} =$ | $\frac{8}{32} =$ |
| $\frac{9}{10} =$ | $\frac{6}{8} =$ | $\frac{9}{50} =$ |
| $\frac{11}{20} =$ | $\frac{6}{10} =$ | $\frac{8}{16} =$ |

NOTES (Conversions) Name_____
No calculator( fraction/decimal/%)

Given a decimal, change it to a percent.

EXAMPLE

.14 = Think "How do I read this without the word point?"
14 hundredths → $\frac{14}{100}$
Whatever number is "out of 100" is the percent
14 %
Some people think "Move the decimal point 2 places to the right" .14 → 14. → 14 %

.3 = Think "How can I make this out of 100?"
.3 = .30 → see above example → 30 %

1.2 = Think " I need 2 decimal places 1.2 → 1.20"
1.20 → see first example → 120 %

.125 = Think "The percent is the number in the first two places after the decimal. Anything after that is a decimal part of the percent" Think 12 %
Then think 12.5 %
See first example "Move decimal point two places to the right" .125 → 12.5 → 12.5 %

PRACTICE Change these decimals to percents.

1) .1 =
2) .47 =
3) .7 =
4) .375 =
5) 1.25 =
6) .23 =
7) 1.5 =
8) .9 =
9) .8 =

Notes (Conversions) Name_____
No Calculator (fraction/decimal/%)

**Given a percent, change it to a fraction(in lowest terms).**

EXAMPLES:

4 % = Think "4 hundredths" Write the fraction and put in lowest terms. $\frac{4}{100} \xrightarrow[\div 4]{\div 4} \frac{1}{25}$

150 % = Think " 150 hundredths" $\rightarrow \frac{150}{100} \xrightarrow[\div 50]{\div 50} \frac{3}{2}$

**Given a decimal, change it to a fraction (in lowest terms).**

EXAMPLES:

.4 = Think 4 tenths $\rightarrow \frac{4}{10} \xrightarrow[\div 2]{\div 2} \frac{2}{5}$

.35 = Think 35 hundredths $\rightarrow \frac{35}{100} \xrightarrow[\div 5]{\div 5} \frac{7}{20}$

2.5 = Think 2 and 5 tenths $\rightarrow 2\frac{5}{10} \xrightarrow[\div 5]{\div 5} 2\frac{1}{2} \rightarrow \frac{5}{2}$

Change to an improper fraction

Practice: Change these to fractions in lowest terms.

1) 24 % =

2) .6 =

3) 5 % =

4) 45 % =

5) .12 =

6) .08 =

7) 125 % =

8) 1.5 =

9) 80 % =

Notes (Conversions) Name_____
No Calculator (fraction/decimal/%)

**Given a percent, change it as a decimal.**

EXAMPLES: Remember decimal place names!


29 % Think " 29 hundredths" .__ __ → .29

2 % Think " 2 hundredths" .__ __ → .02

125 % Think "125 hundredths" __ .__ __ → 1.25

Some people think " Move the decimal point two places to the left. 34% → 34. → .34

1.5 % Think "1.5 hundredths" $\frac{1.5}{100} \xrightarrow[\times 10]{\times 10} \frac{15}{1000} \rightarrow .015$

Practice: Write these percents as decimals.

1) 3 %

2) 14 %

3) 25 %

4) 175 %

5) 40 %

6) 78 %

7) 2.5 %

8) 9 %

9) 85 %

Notes (Conversions) Name_____
No Calculator (fraction/decimal/%)

Given a fraction, write it as a decimal

EXAMPLES:

$\frac{3}{10} = .3$ $\frac{3}{100} = .03$ $\frac{3}{1000} = .003$ Think " decimal places"

$\frac{4}{25}$ Think " Can I make the denominator 100 easily?"

"Is the denominator a 5,10,20,25,50 ?

$\frac{4}{25} = \overset{\times 4}{\underset{\times 4}{\square}}\frac{\square}{100} \rightarrow \frac{16}{100} \rightarrow .16$

$\frac{1}{8}$ Think " Last resort is LONG DIVISION"

$8\overline{)1} \rightarrow 8\overline{)1.000}$ (.125)

Practice: Write these fractions as decimals.

1) $\frac{6}{100}$ 2) $\frac{3}{5}$ 3) $\frac{7}{10}$

4) $\frac{13}{50}$ 5) $\frac{5}{9}$ 6) $\frac{7}{8}$

7) $\frac{19}{100}$ 8) $\frac{3}{4}$ 9) $\frac{1}{5}$

Complete the chart. Name_____

| Fraction (in lowest terms) | Decimal | Percent |
|---|---|---|
| $\frac{1}{4}$ | | |
| | | 20 % |
| | .4 | |
| | | 6 % |
| $\frac{9}{10}$ | | |
| | 1.2 | |
| $\frac{3}{5}$ | | |
| | | 35 % |
| | .06 | |
| $\frac{11}{50}$ | | |
| | | 150 % |
| $\frac{7}{25}$ | | |
| | | |