

PERCENTS TO DECIMALS TO FRACTIONS

1. To change a percent to a decimal:

- Move the decimal 2 times to the left
- Examples:

$$50\% = \underset{\substack{\uparrow \uparrow}}{50} = .50$$

$$137\% = \underset{\substack{\uparrow \uparrow}}{137} = 1.37$$

2. To change a percent to a fraction:

- Put the percent over 100 and drop the percent sign
- Reduce if possible
- Examples:

$$50\% = \frac{50}{100} = \frac{1}{2}$$

$$46\% = \frac{46}{100} = \frac{23}{50}$$

3. To change a decimal to a fraction:

- Determine the place value of the right most digit. The name of that digit becomes the denominator.
- Place the numbers to the right of the decimal in the numerator, dropping any leading zeros.
- Any number to the left of the decimal will become the whole number part of the new mixed number.
- Reduce if possible
- Examples:

$$0.50 = 0.\underset{\substack{\uparrow \\ \text{Tenths}}}{5}\underset{\substack{\uparrow \\ \text{Hundredths}}}{0} = \frac{50}{100} = \frac{1}{2}$$

$$2.587 = 2.\underset{\substack{\uparrow \\ \text{Tenths}}}{5}\underset{\substack{\uparrow \\ \text{Hundredths}}}{8}\underset{\substack{\uparrow \\ \text{Thousandths}}}{7} = 2\frac{587}{1000}$$

4. To change a decimal to a percent:

- Move the decimal point two times to the right and add a percent sign at the end
- Examples:

$$0.50 = 0.\underset{\substack{\uparrow \uparrow}}{50} = 50\%$$

$$.432 = 0.\underset{\substack{\uparrow \uparrow}}{432} = 43.2\%$$

5. To change a fraction to a decimal:

- Divide the numerator by the denominator
- Examples:

$$\frac{1}{2} = 1 \div 2 = 2 \overline{)1.00} = 0.50$$

$$\frac{13}{20} = 13 \div 20 = 20 \overline{)13.00} = 0.65$$

6. To change a fraction to a percent:

- First change the fraction to a decimal. (Number 5 above)
- Then change the decimal to a percent. (Number 4 above)