

Fractions, Decimals and Percentages are all related. They are different ways of expressing an amount.

CONVERT DECIMAL TO %:

Multiply by 100

Eg. $0.73 = 73\%$

Eg. $1.28 = 128\%$

Eg. $0.1 = 10\%$

CONVERT DECIMALS TO FRACTIONS:

Digits to the left of the decimal are whole numbers

Digits to the right of the decimal are written over multiples of 10

Eg. $0.2 = \frac{2}{10} = \frac{1}{5}$

Eg. $0.7 = \frac{7}{10}$

Eg. $0.32 = \frac{32}{100} = \frac{8}{25}$

Eg. $0.213 = \frac{213}{1000}$

Eg. $1.3 = 1\frac{3}{10}$



1. Convert the following decimals into percentages:

- | | | | | |
|---------------|---------------|----------------|----------------|----------------|
| a) 0.4 _____ | b) 0.05 _____ | c) 0.98 _____ | d) 2 _____ | e) 0.5 _____ |
| f) 0.12 _____ | g) 5.2 _____ | h) 0.130 _____ | i) 0.01 _____ | j) 0.71 _____ |
| k) 1.3 _____ | l) 0.24 _____ | m) 0.82 _____ | n) 0.102 _____ | o) 0.777 _____ |
| p) 0.7 _____ | q) 0.44 _____ | r) 0.9 _____ | s) 1.1 _____ | t) 0.001 _____ |

2. Convert the following decimals into fractions: *(in lowest terms)*

- | | | | | |
|---------------|---------------|----------------|---------------|----------------|
| a) 0.6 _____ | b) 0.04 _____ | c) 0.1 _____ | d) 0.75 _____ | e) 0.55 _____ |
| f) 0.5 _____ | g) 0.45 _____ | h) 0.150 _____ | i) 0.25 _____ | j) 0.70 _____ |
| k) 0.48 _____ | l) 0.30 _____ | m) 0.95 _____ | n) 0.38 _____ | o) 0.875 _____ |

3. Convert the following percentages into fractions: *(in lowest terms)*

- | | | | | |
|--------------|---------------|--------------|--------------|--------------|
| a) 45% _____ | b) 75% _____ | c) 35% _____ | d) 48% _____ | e) 24% _____ |
| f) 50% _____ | g) 15% _____ | h) 60% _____ | i) 40% _____ | j) 58% _____ |
| k) 25% _____ | l) 200% _____ | m) 95% _____ | n) 78% _____ | o) 82% _____ |

4. Convert the following percentages into decimals:

- | | | | | |
|--------------|--------------|--------------|---------------|---------------|
| a) 75% _____ | b) 3% _____ | c) 8% _____ | d) 50% _____ | e) 90% _____ |
| f) 5% _____ | g) 69% _____ | h) 15% _____ | i) 56% _____ | j) 32% _____ |
| k) 12% _____ | l) 2% _____ | m) 25% _____ | n) 100% _____ | o) 200% _____ |
| p) 1% _____ | q) 12% _____ | r) 10% _____ | s) 150% _____ | t) 84% _____ |

5. Convert the following fractions into decimals: *(to 2 dp)*

- | | | | | |
|-----------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| a) $\frac{32}{100}$ _____ | b) $\frac{875}{100}$ _____ | c) $1\frac{5}{10}$ _____ | d) $\frac{11}{100}$ _____ | e) $\frac{12}{10}$ _____ |
| f) $\frac{2}{10}$ _____ | g) $\frac{64}{100}$ _____ | h) $5\frac{9}{10}$ _____ | i) $3\frac{2}{100}$ _____ | j) $\frac{131}{10}$ _____ |
| k) $\frac{87}{96}$ _____ | l) $\frac{110}{68}$ _____ | m) $4\frac{13}{15}$ _____ | n) $\frac{1}{19}$ _____ | o) $\frac{23}{154}$ _____ |
| p) $\frac{125}{4000}$ _____ | q) $\frac{104}{500}$ _____ | r) $8\frac{42}{45}$ _____ | s) $14\frac{16}{40}$ _____ | t) $10\frac{1}{4}$ _____ |