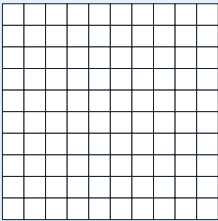


# Fraction-decimal-percentage equivalence mastery

MODULE 3 · FRACTIONS, DECIMALS AND PERCENTAGES      NUMBER

Fractions, decimals and percentages are **three ways of writing the same value**. Knowing the common ones by heart speeds up everything.



- $\frac{1}{2} = 0.5 = 50\%$ ;  $\frac{1}{4} = 0.25 = 25\%$ ;  $\frac{3}{4} = 0.75 = 75\%$ .  
→  $\frac{1}{5} = 0.2 = 20\%$ ;  $\frac{1}{10} = 0.1 = 10\%$ .

## HOW TO ANSWER TODAY

- Fraction · decimal · %.** Divide top by bottom to get a decimal. Multiply a decimal by 100 to get a percent. Write fractions in lowest terms.  
 $\frac{1}{4} = 0.25 = 25\%$  ·  $0.6 = 60\% = \frac{3}{5}$
- Percent of a quantity.** Find 10% first ( $\div 10$ ) and build up, or find 1% ( $\div 100$ ) and multiply.  
 $20\% \text{ of } 50 \rightarrow 10\% \text{ of } 50 = 5, \times 2 = 10$
- Discount / increase.** Work out the percent of the price, then take it off (discount) or add it on (increase).  
 $\text{€}80 \text{ with } 15\% \text{ off} \rightarrow 15\% \text{ of } \text{€}80 = \text{€}12 \rightarrow \text{€}80 - \text{€}12 = \text{€}68$

## MATCH-UP

Match each fraction to its percentage.

|                   |
|-------------------|
| a. $\frac{1}{2}$  |
| b. $\frac{1}{4}$  |
| c. $\frac{3}{4}$  |
| d. $\frac{1}{5}$  |
| e. $\frac{1}{10}$ |

|        |
|--------|
| 1. 20% |
| 2. 75% |
| 3. 25% |
| 4. 10% |
| 5. 50% |

## PRACTICE

- Cian's 5th class teacher hands out a **10 × 10** grid of biscuit squares from a tray at break time and asks the pupils to shade **88%** of the squares to show how many biscuits have been eaten. How many of the **100** small squares should Cian shade?
- Cian and his sister Saoirse get **€960** between them for minding their grandad's garden over the summer. They agree to split the money fairly, so Saoirse takes **50%** of the **€960**. How much does Saoirse get?

What is 50% of 960?