## Concept - Percentages and Applications

When working in Finance, the ability to quickly and confidently use percentages to perform a number of calculations is very important.

Recall that to calculate percentages of an amount use the formula:

$$
\%=\frac{\text { part }}{\text { whole }} \times 100
$$

## How to - Calculate discounts

If a product is discounted by a certain percentage, the sale price can be calculated using the equation.

## Example

A set of headphones normally retails for $\$ 235.95$. One store has a sale where these headphones are reduced by $12.5 \%$. What is the sale price?

## How to - Calculate markups

Shops make money by selling product for more than they buy it for. This increase in cost is called a markup. Businesses can maximise their profits by only marking up a little but selling lots of products, or by having a large markup but selling less products.

The price before the markup is often called the $\qquad$
The equation to calculate this is:

## Example

The company which sells the headphones buys them from the manufacturer for $\$ 175$. If they marked these up by $16 \%$, what would the company sell the headphones for and how much profit would they make?

How to - Calculate percentage increase or discount
If you are asked to work out the percentage increase or discount in a given situation you can use the equations:

## Example

The company which sells the headphones buys them from the manufacturer for $\$ 175$. What is the percentage markup they normally use when selling the headphones for \$235.95?

## How to - Calculate the original price

If a discount or an increase has been applied to a price, we can find the original price using the equations:

## Example

The company which sells the headphones has found another manufacturer and can now have a markup of $42 \%$ to sell the headphones for $\$ 235.95$. What is the wholesale price from the new manufacturer and how much profit will the company make now?

## How to - Work with GST

In Australia many products and services are subject to the Goods and Services Tax (GST). When working with GST we can use the flowcharts below.


## Example

How much GST will the company need to pay for each pair of headphones they sell for \$235.95?

