Please send me a message to tell me if you did any follow up work last week.

Fraction, Decimals and Percentages

LO: To be able to find a percentage change.

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1) Starter – Find percentage of amounts

2) How do you find a percentage change.

3) Practise finding a percentage change.

4) Percentage Change Chain.

5) Word Questions.

6) Homes Under the Hammer.

7) Thinking Question……..

8) Follow up work.

Starter

1) 10% of £345

2) 25% of £56

3) 89% of £724

4) In a sale the price of a jacket has decreased by 10%. The original price was £300, What is the sale price

5) Johns wage of £156 a week has increased by 4%. What is his wage now?

LO: To be able to find a percentage change.

1) I bought a house for £125k and sold it for £232k. What percentage profit did I make?

2) A pair of trainers were £120. They were reduced to £90. What percertage reduction is this?

Percentage change

Percentage change is where we discover what percentage an amount has increased or decreased by.

$$\textbf{Percentage Change} = \frac{\textbf{Difference in amounts}}{\textbf{Original amount}} \times \textbf{100}$$

$$Percentage\ Change = \frac{Difference\ in\ amounts}{Original\ amount} \times 100$$

Original Amount: £100
Final Amount: £110

Original Amount: £250
Final Amount: £300

Original Amount: £75
Final Amount: £87.50

Calculate the percentage change

2004 — 72k

2010 — 185k

$$\text{Percentage Change} = \frac{\text{Difference in amounts}}{\text{Original amount}} \times 100$$
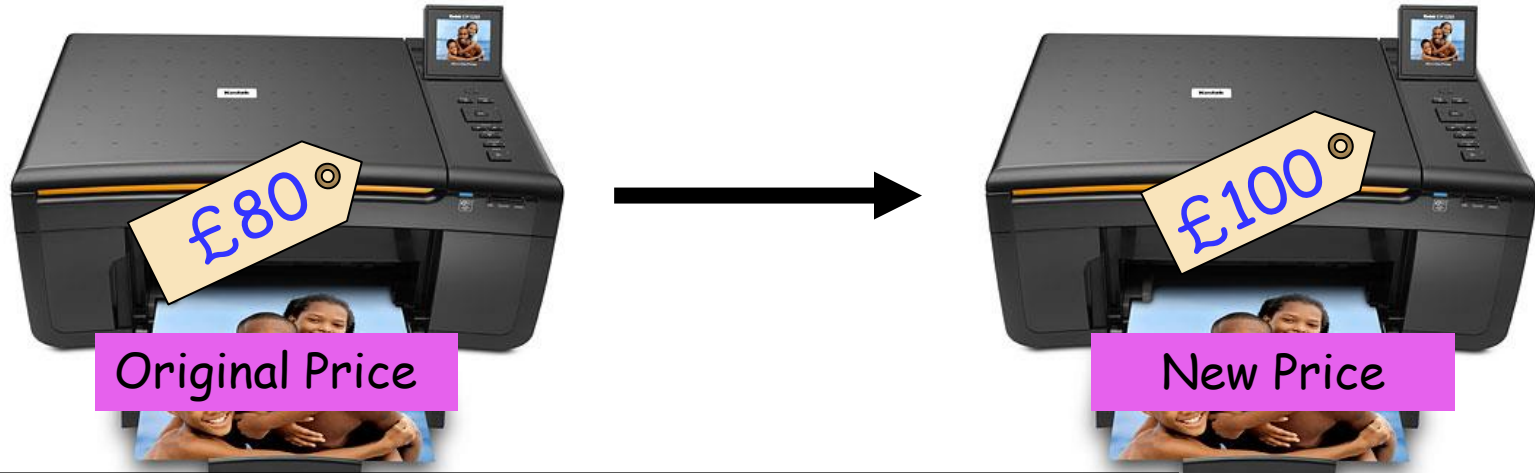
Calculate the percentage change

$$\text{Percentage Change} = \frac{\text{Difference in amounts}}{\text{Original amount}} \times 100$$

Percentage Change

A computer accessories shop increased the price of one of its printers from £80 to £100. Find the percentage increase in price.

£80

Original Price

£100

New Price

In this case the change is an increase.

Percentage change = $\dfrac{\text{difference}}{\text{original quantity}} \times 100$

Percentage increase = $\dfrac{\text{increase}}{\text{original quantity}} \times 100$

Percentage increase = $\dfrac{20}{80} \times 100 = 25\%$

Percentage Change = $\dfrac{\text{Difference in amounts}}{\text{Original amount}} \times 100$

Percentage Change

Find the percentage decrease in the cost of the car in the sale. (1 dp)

£35500

Sale

£34000

Original Price

Sale Price

Percentage change = $\dfrac{\text{difference}}{\text{original quantity}} \times 100$

Percentage decrease = $\dfrac{1500}{35\ 500} \times 100 = 4.2\%$

Percentage Change = $\dfrac{\text{Difference in amounts}}{\text{Original amount}} \times 100$

Percentage Change

The items below show the old price and new price after a percentage change. Calculate the percentage change for each (1dp), stating whether it is an increase or decrease.

£90 £98

$$\frac{8}{90} \times 100 = \text{8.9\% inc}$$

£670 £640

$$\frac{30}{670} \times 100 = \text{4.5\% dec}$$

£299 £330

$$\frac{31}{299} \times 100 = \text{10.4\% inc}$$

£34 £27

$$\frac{7}{34} \times 100 = \text{20.6\% dec}$$

£6.20 £8.10

$$\frac{1.90}{6.20} \times 100 = \text{30.6\% inc}$$

£44.45 £41.60

$$\frac{2.85}{44.45} \times 100 = \text{6.4\% dec}$$

| £500 | Increase by 20% → | £600 | | £300 |

Percentage Change Chain

£420

| £441 | | £252 | | £315 |

Percentage Change Chain

£500 → Increase by 20% → £600 → Decrease by 50% → £300

£300 → Increase by 40% → £420

£420 → Decrease by 25% → £315

£315 → Decrease by 20% → £252

£252 → Increase by 75% → £441

$$\frac{59}{441} \times 100 = 13.4\%$$

Increase by 13.4% → £500

1) Lucy's height was 125cm. It has increased by 30 cm.
a) Calculate her new height
b) Calculate the percentage change

2) A jacket cost £75.
The price was reduced by £12.
a) Calculate the new price
b) Calculate the percentage reduction in price

3) Aminah's height was 150cm.
Her height increased by 16%
a) Calculate the increase in height
b) Calculate Aminah's new height

4) A suit was £150.
The price was reduced by £114.
a) Calculate the price change
b) Calculate the percentage reduction in price

5) Karen's height increased by 12.5%.
This increase in height was 20cm
a) Calculate Karen's original height
b) Calculate Karen's new height

Extension
**Come up with your own question for your partner.**
Have an answer as well

Homes Under The Hammer

If you've never seen this daytime television gem, then what happens is that people buy a property in an auction, do it up, then sell or rent it.

Lucy and Martin interview them before and after the renovation and estate agents value the property before and after.

The aim is to make a profit!
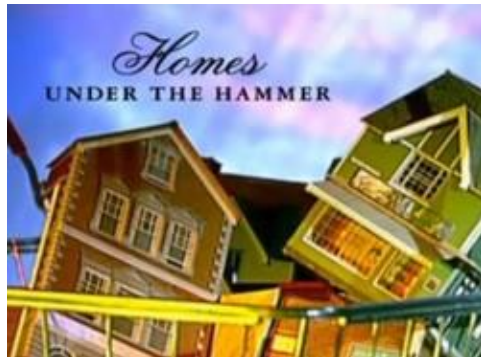
House 1

Before:

After:

Cost:
Auction - £35,000
Labour - £6,500
Kitchen - £2,500
Bathroom - £3,000
Flooring - £1,250
Other - £750

Valued:
£55,000

Will they make a profit?

What percentage profit/loss have they made?

House 2

Before:

After:

Cost:
Auction - £148,000
Labour - £11,200
Kitchen - £4,700
Windows - £3,900
Bathrooms - £5,630
Carpets/Flooring - £5,350
Other - £1,290

Valued:
£175,000

Will they make a profit?

What percentage profit/loss have they made?

House 3

Before:

After:

Cost:
Auction - £173,250
Labour - £15,530
Kitchen - £4,215
Bathroom - £3,420
Carpets/Flooring - £3,140
Garage - £12,060
Garden - £3,125
Other - £1,023

Valued:
£249,950

Will they make a profit?

What percentage profit/loss have they made?

Flat 1

The lady in the picture bought this studio flat, costing:
Auction - £95,000
Decoration - £550
Carpet/Flooring - £1,240
Cleaning - £475

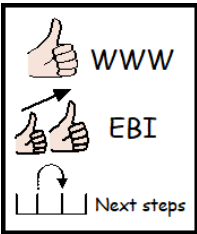She rents the flat for £725 pcm (per calendar month).

She bought it with cash (so she pays no interest on it) - how long until she gets all her money back?

Plenary

A man in a shop decides to put his prices up by 10% as he needed more money.

However he found this didn't work and reduced his prices back down by 10% .

Is the price of the items now the same as the original price?

LO: To be able to find a percentage change.

Follow up work

1)   Percentage change Number seacrch

2)   Percentage change Activity Sheet

3)   Storage Hunters Activity