

I Do

In a sale, normal prices are reduced by 20%.

The sale price of a coat is £72.

Work out the normal price of the coat.

We Do

In a sale, normal prices are reduced by 30%.

The sale price of a pair of shoes is £42.

Work out the normal price of the shoes.

You Do

In a sale, normal prices are reduced by 25%.

The sale price of a watch is £45.

Work out the normal price of the watch.

Challenge

A shop has a sale where all normal prices are reduced by 10%.

On the final day of the sale, they take a further 20% off the *sale price*.

The final price of a laptop is £360.

Work out the normal price of the laptop.

Answers & Worked Solutions

- **I Do:**

$$100\% - 20\% = 80\%$$

$$80\% = £72$$

Divide by 8 to find 10%: $10\% = £9$

Multiply by 10 to find 100%: $100\% = £90$

Answer: £90

- **We Do:**

$$100\% - 30\% = 70\%$$

$$70\% = £42$$

Divide by 7 to find 10%: $10\% = £6$

Multiply by 10 to find 100%: $100\% = £60$

Answer: £60

- **You Do:**

$$100\% - 25\% = 75\%$$

$$75\% = £45$$

Divide by 3 to find 25%: $25\% = £15$

Multiply by 4 to find 100%: $100\% = £60$

Answer: £60

- **Challenge:**

Let the normal price be 100%.

After the first 10% reduction, the price is 90%.

The second reduction is 20% of 90%: $0.20 \times 90 = 18\%$.

Final percentage of original price = $90\% - 18\% = 72\%$

(Alternative multiplier method: $0.9 \times 0.8 = 0.72 = 72\%$).

$$72\% = £360$$

Divide by 72 to find 1%: $1\% = £5$

Multiply by 100 to find 100%: $100\% = £500$

Answer: £500