rcentages and prices

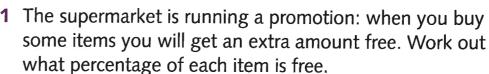### lve problems involving percentages

The sports shop is closing down. The manager decides to reduce all of the items in the shop by 10% of their current price each day for the last three days that they are open: Monday, Tuesday and Wednesday. The percentage reduction is worked out on the price of the previous day. The prices shown below are before they are reduced. What will be the cost of each item on Wednesday?

£130

£50

£160

£30

£250

£80

Example

Monday
10% of £20 is £2
£20 – £2 = £18

£20

Tuesday
10% of £18 is £1.80
£18 – £1.80 = £16.20

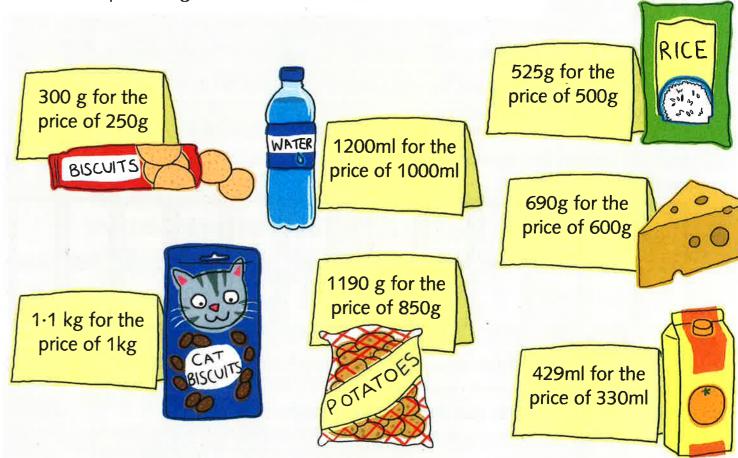**Wednesday**
10% of £16.20 is £1.62
£16.20 – £1.62 = £14.58

1 The computer shop has a New Year sale, starting 1st January, for just 3 days. The manager reduces the prices by 10% each day. The percentage reduction is worked out on the price of the previous day. The prices shown below are before they are reduced. What will the prices be on 3 January?

£450

£900

£850

£1500

£1800

£4700

2 Would you rather buy the laptop on 2 January, or on 1 January with a 20% discount? Compare the prices and explain your reasons.

3 Would you rather buy the camera on 3 January, or on 1 January with a 28% discount? Compare the prices and explain your reasons.

Challenge 3

1 The supermarket is running a promotion: when you buy some items you will get an extra amount free. Work out what percentage of each item is free.

RICE

525g for the price of 500g

300 g for the price of 250g

BISCUITS

WATER

1200ml for the price of 1000ml

690g for the price of 600g

1190 g for the price of 850g

1·1 kg for the price of 1kg

CAT BISCUITS

POTATOES

429ml for the price of 330ml

2 Imagine you are a shop owner and want to sell all of your stock.

- How much will you reduce it by?
- Will you keep the same price each day or will you change it?
- Write a report about what you would do, explaining your reasoning and giving at least three worked examples.