S3 BLOCK 7 Section 2 and 3 Revision

You may use a calculator when you see this symbol

BODMAS

1. a) $3 + 6 \times 6$ b) $2 - 36 \div 4$ c) $\frac{(5+7)^2}{2}$ d) $\sqrt{8 \times 2} + 5$

   e) $(4 + 5)^2 \times 1$ f) $3 \times 3 + 3^2$

   g) Add brackets to make this equation correct $4 \times 4 \times 3 - 5 = -32$

   h) Add brackets to make this equation correct $7 \times 6 - 5^2 = 7$

Decimals

1. Lily buys a necklace for £18.40 and a pair of jeans for £12.97. How much did Lily spend?

2. Dan has £15.01 and buys a photo frame for £10.63. How much does Dan have left?

3. a) 166×100   b) 0.17×10   c) 6.7×1000   d) 17.2÷10   e) 2400÷1000

4. Round to the given number of decimal places or significant figures:

   a) 54.214 (1dp)   b) 64.5382 (2dp)   c) 0.005736 (3sf)   d) 36.5278 (3sf)

£1 = 1.116 Euros

1. For a holiday in France, I have £300 spending money. How many Euros will I receive?

2. After I return from my holiday, I have 60 Euros left. How much will I receive back in pounds sterling?

Percentages

1. a) Find 75% of 110   b) Find 80% of 10   c) Find 70% of 670

2. a) If 50% of a number is 32. What is the number?

   b) If 20% of a number is 71. What is the number?

   c) If 60% of a number is 24. What is the number?

3. Write down the multipliers for the following increase or decrease percentages:

   a) 20% increase   b) 8% decrease

   c) 2.5% increase   d) 12.5% decrease

4. a) Jilly scored 65 out of 80 in her Maths test. Rebecca sat a different Maths test and scored 27 out of 35. Who did better? Explain your answer.

b) A car is bought for £6700 and sold a year later for £4891.

Calculate the percentage loss.

c) A house has increased in value by 12% to £63000. What was the original value?

e) After restoring a boat it was worth £2511. If it made a profit of 35% how much was it worth before restoration?

f) Sophie has £6900 in the bank. It earns 1.2% interest annually. How much will be in the account after 5 years?

Fractions

1. a) $\frac{1}{2}$ of 42   b) $\frac{2}{5}$ of 55   c) $\frac{3}{4}$ of 20

2. Greg has 35 counters. He gives Gary $\frac{2}{7}$ of his counters. How many does Greg have left?

3. Evaluate:

a) $\frac{2}{3} + \frac{1}{12}$ b) $\frac{1}{6} \times \frac{3}{11}$ c) $2\frac{3}{5} - \frac{9}{10}$ d) $1\frac{1}{2} \div 2\frac{3}{7}$

Ratio problems

1. When author K. S. Shawling dies, she left £2 400 000 in her will to be shared among her nephew and nieces, Lois, Hugo and Stephano in the ratio of their ages.
Lois is aged 30, Hugo is 24 and Stephano is 18.

a) Write down the ratio of their ages in the order given.

b) Simplify this ratio.

c) Calculate how much each niece/nephew received.

2. ASDA sell three different types of bottled water. The prices of the bottled water are in the ratio of...

A:B:C = 1 : 3 : 4

The cheapest bottle of water is 20p.

a) What is the price of each bottle of water?

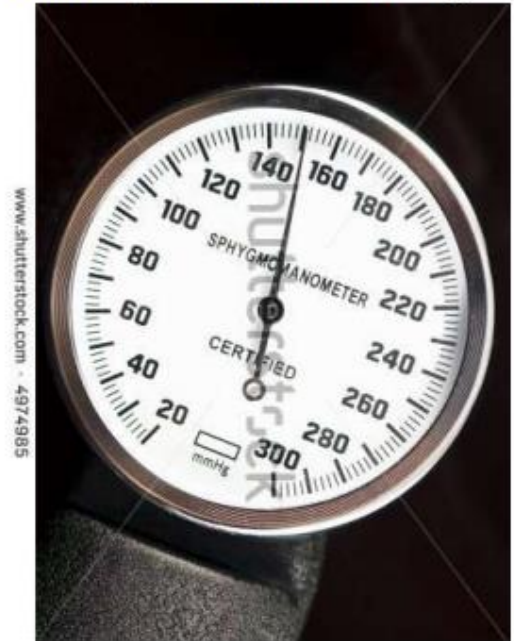b) In one day they sell 200 bottle A's, 150 bottle B's and 100 bottle C's. How much money do they make?

Recording Measurements from a Scale

1. State the pressure in psi on the pressure gauge.
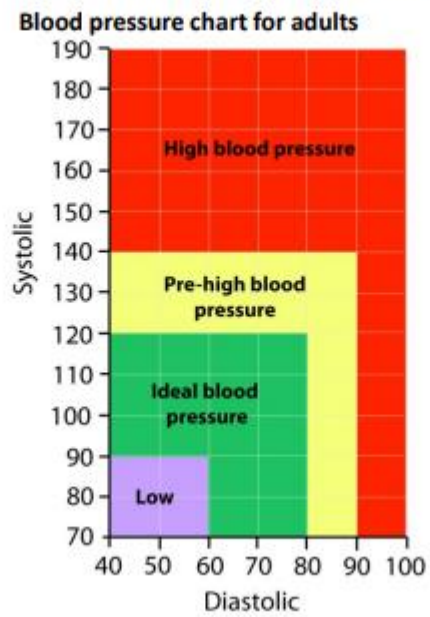

2. State the upper blood pressure in mmHg.

3. State the temperature in Fahrenheit.

4.

The blood pressure chart shows ranges of high, low and healthy blood pressure readings.

Blood pressure chart for adults

David has his blood pressure taken. The Diastolic and Systolic results are shown below.

Explain what this tells David about his blood pressure.   (1)