Sarah, Sonia and Maria are sharing £21,000 in the ratio 2 : 1 : 4. How much money do they each receive?

$$2 + 1 + 4 = 7$$ There are 7 parts.

$$£21,000 \div 7 = £3,000$$ Each part is worth £3,000.

Sarah: $2 \times £3,000 = £6,000$

Sonia: $1 \times £3,000 = £3,000$

Maria: $4 \times £3,000 = £12,000$

In order to make concrete for foundations, a mix of 1 part cement, 3 parts sand and 6 parts aggregate is to be used. Bill has 45kgs of sand.

Work out how many kilograms of cement and aggregate Bob needs to order so that he can use up all of his sand.

Sand: 3 parts = 45 kilograms

1 part = 15 kilograms

Cement: 1 part, so 15 kilograms of cement

Aggregate: 6 parts, $6 \times 15 = 90$ kilograms

Bob needs 15kg of cement and 90kg of aggregate.

The ratio of men to women is $15 : 6$. What fraction of these people are men?
Leave your fraction in it's simplest form.

Men are 15 parts, there are 21 parts in total.

$$= \frac{15}{21} = \frac{5}{7}$$

$$= \frac{5}{7}$$

Write $48 : 72$ in its simplest form.

$$48 : 72$$

$$= 24 : 36$$

$$= 12 : 18$$

$$= 6 : 9$$

$$= 2 : 3$$

$$= 2 : 3$$

Toby needs to mix chemicals A, B and C. He has plenty of Chemicals B and C but only 54 litres of Chemical A. He is required to mix the chemicals in the ration 6:2:7.

What is the maximum number of litres of chemicals Toby can make?

Chemical A: 6 parts = 54 litres

1 part = 9 litres

Total number of parts $= 6 + 2 + 7 = 15$ parts

$$9 \times 15 = 135$$

Toby can make 135 *litres*