



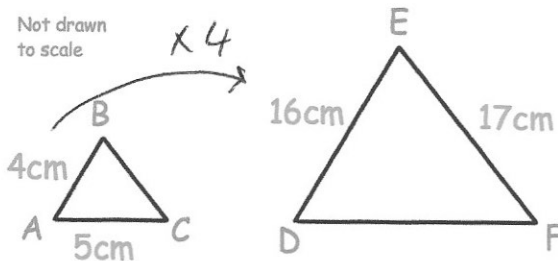
Work out

$$3\frac{1}{8} \div \frac{2}{3}$$

Give your answer as a mixed number.

$$\frac{25}{8} \times \frac{3}{2} = \frac{75}{16}$$

$$4\frac{11}{16}$$

Not drawn
to scale

Scalene triangles ABC and DEF are similar.

Angle A = Angle D Angle C = Angle F

Work out the length of BC.

$$17 \div 4 = 4.25 \text{ cm}$$

Solve the simultaneous equations

$$3x + 2y = 54$$

$$2x - 2y = 16$$

$$\underline{\quad} \quad \underline{\quad} \quad \underline{\quad}$$

$$5x \quad = 70$$

$$x = 14$$

add

$$28 - 2y = 16$$

$$2y = 12$$

$$y = 6$$

1.5kg ^{1500g} of iron and 30g of carbon are mixed to make an alloy.

The density of iron is 7.9g/cm³The density of carbon is 2.25g/cm³

$$d^m v$$

Work out the volume of iron used in the alloy.

$$\frac{1500}{7.9} = 189.87... \text{ cm}^3$$

Work out the volume of carbon used in the alloy.

$$\frac{30}{2.25} = 13.3 \text{ cm}^3$$

What is the density of the alloy?

$$\frac{1530}{203.2...}$$

$$7.53 \text{ g/cm}^3$$