

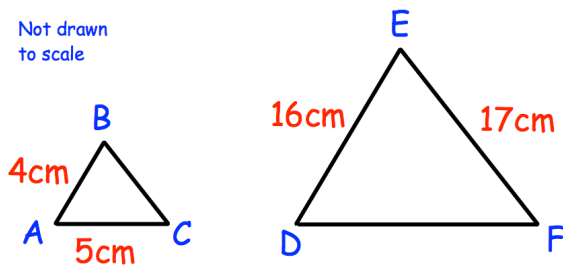


Work out

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

Give your answer as a mixed number.

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.

Solve the simultaneous equations

$$3x + 2y = 54$$

$$2x - 2y = 16$$

1.5kg of iron and 30g of carbon are mixed to make an alloy.

The density of iron is  $7.9\text{g/cm}^3$

The density of carbon is  $2.25\text{g/cm}^3$

Work out the volume of iron used in the alloy.

Work out the volume of carbon used in the alloy.

What is the density of the alloy?