Show all working – Calculator allowed.

Marks

1. Calculate the value of **x** and **y** in the diagrams below.

a)

720cm

J — K

640cm   600cm

L

x cm

N   270cm   M

(b)

A

y cm

B   15cm   C

5·5 cm

D   20cm   E
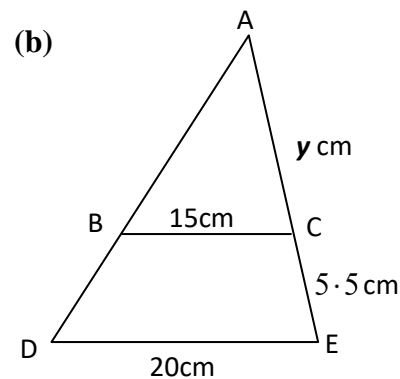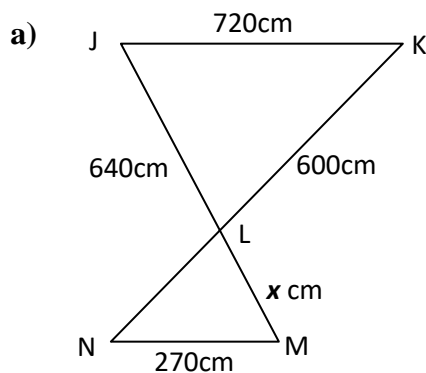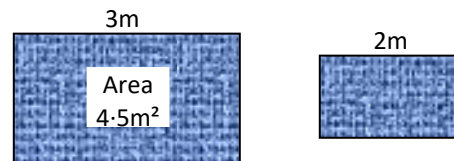
(6)

2. a) These two rugs are mathematically similar.

The area of the larger one is 4·5m².

What is the area of the smaller one?

3m

Area
4·5m²

2m

(3)

3.

These two parcels are mathematically similar. The smaller one has dimensions which are half those of the larger. The smaller box has volume 150cm³.
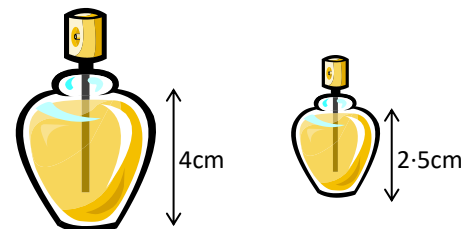
Calculate the volume of the larger.

(3)

4. These two perfume bottles are mathematically similar. The cost depends on the volume of perfume in them.

The larger bottle costs £62.

Find the cost of the smaller bottle correct to the nearest penny.

4cm

2·5cm

(3)

Total Marks: 15