Similar Shapes: Length

1. In each of the following the pairs of shapes are similar. Find the length of the unknown side.

28 cm 35 cm 10 cm 8 cm

12 cm a cm

10 cm 8 cm 15 cm

25 cm b cm c cm

2·4 cm d cm 12 cm 16 cm

8 cm 10 cm

4·2 cm e cm

30 cm f cm 15 cm 10 cm

25 cm 8 cm

4·8 cm g cm
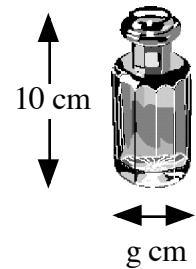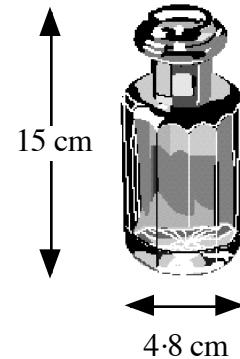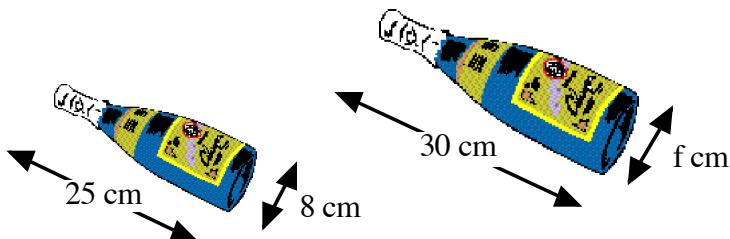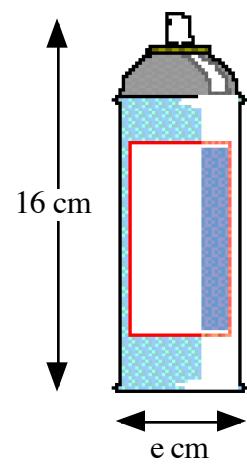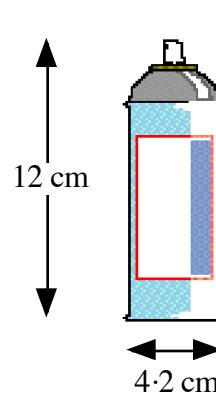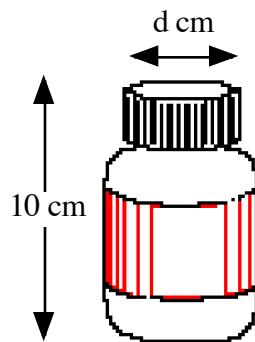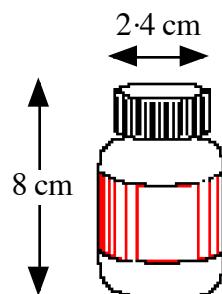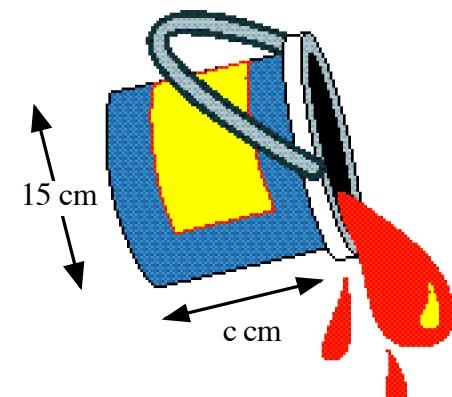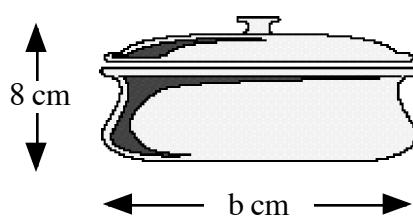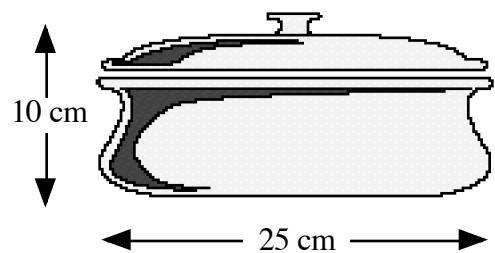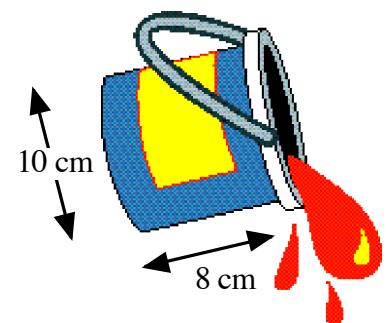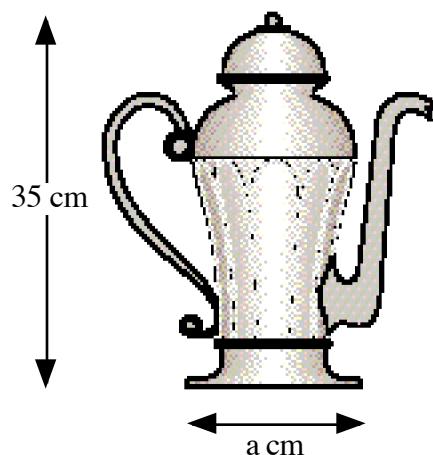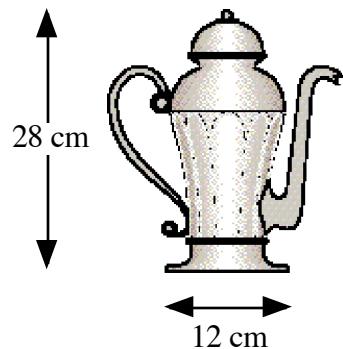
2. In the following the pairs of shapes are similar. Find the length of the unknown side. The mixed units are intentional.

36 inches

50 cm

27 inches

a cm

80 cm

48 cm

b cm
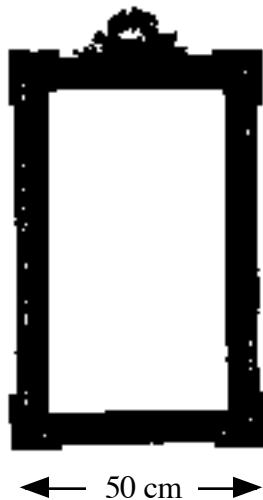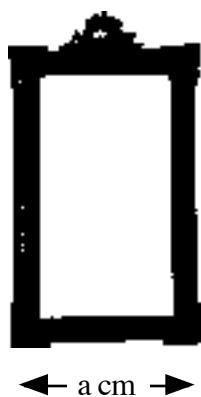
72 cm

90 inches

75 cm

c inches

60 cm
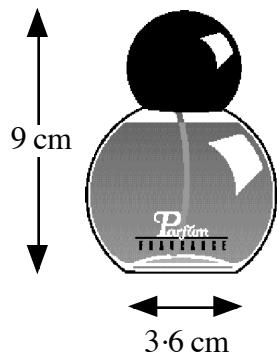
9 cm

3·6 cm
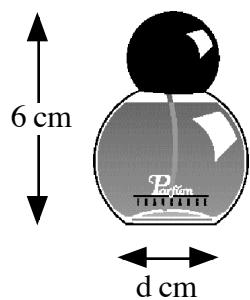
6 cm

d cm
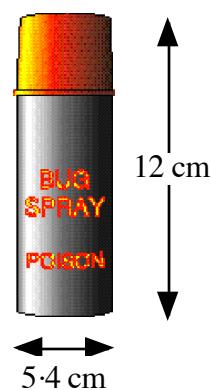
12 cm

5·4 cm

18 cm

e cm
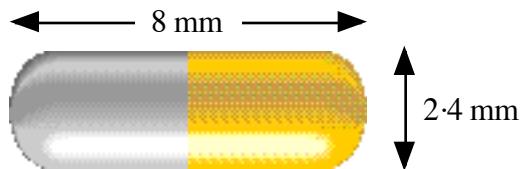
8 mm

2·4 mm
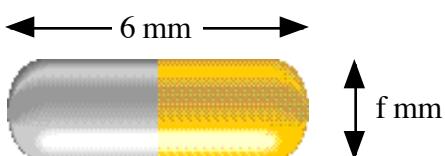
6 mm

f mm

Answers

1. a = 15   b = 20   c = 12   d = 3   e = 5·6   f = 9·6   g = 3·2

2. a = 37·5   b = 120   c = 72   d = 2·4   e = 8·1   f = 1·8