Circle Facts

Cut, answer & stick

Diameter = _____cm

Circumference = _____cm

Radius = _____cm

Area = _____cm

Cut, answer & stick

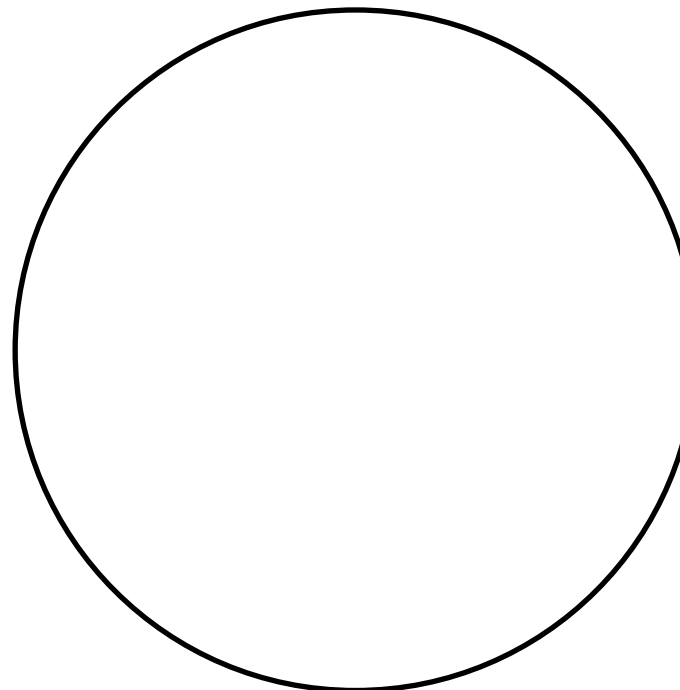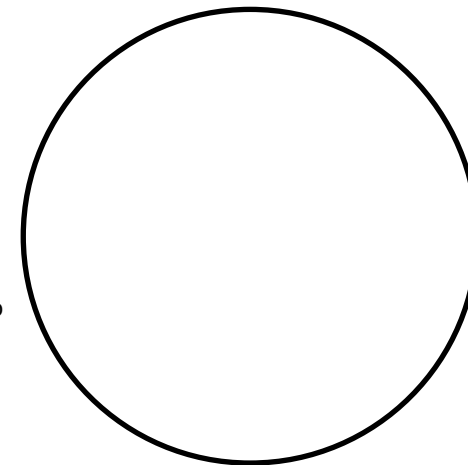Diameter = _____cm

Circumference = _____cm

Radius = _____cm

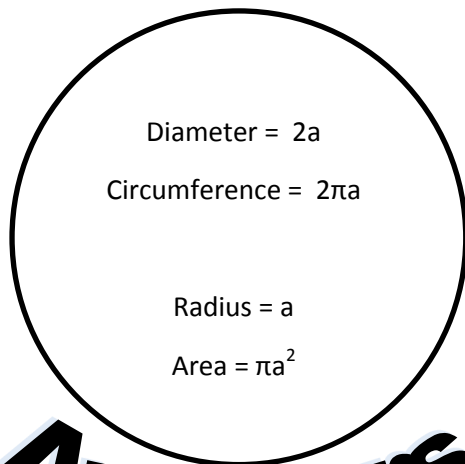Area = _____cm

Cone Investigation

1. Cut out the circles

2. Find the centre of the large circle

3. Cut along the radius

4. Overlap the edges until the cone fits onto the small circle.

5. Cut off the excess card—what shape do you have?

6. Find the area of the curved surface using what you worked out in the 'Circle facts'

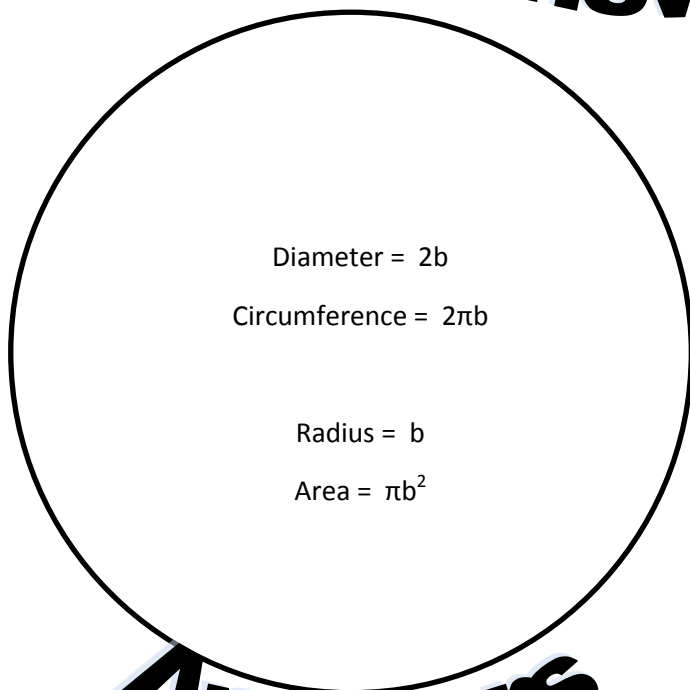**Hint:** What do the cone and the small circle have in common?

Circle Facts

Diameter = 2a

Circumference = 2πa

Radius = a

Area = πa²

Answers

Diameter = 2b

Circumference = 2πb

Radius = b

Area = πb²

Answers

Cone Investigation

Area of curved surface =

(Area of circle b) × (circumference of a) ÷ (circumference of b)

Area = πb² × 2πa ÷ 2πb

Area = πab

So the total surface of a cone is:

πab + πa²

Where a = radius and b = slant height
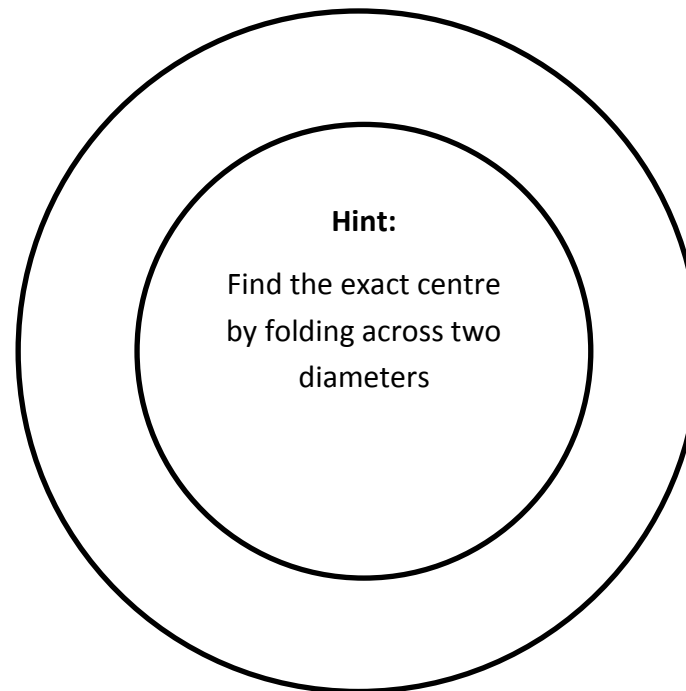
Hint:

Find the exact centre by folding across two diameters