Lengths of arcs

Name:

Calculate the arc length of these sectors (leave your answer correct to 2 decimal places):

a)
4cm 120°

b)
60° 8cm

c)
200°
6cm

d)
175°
3m

e)
2.5m

f)
4.5m 240°

g)
5cm
60°

h)
250°
6cm
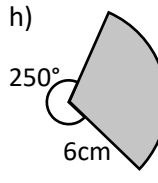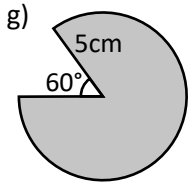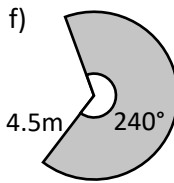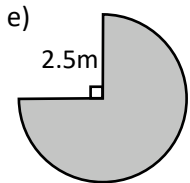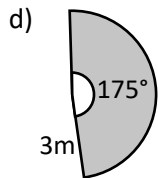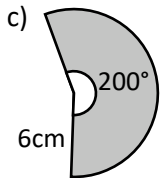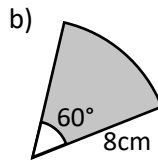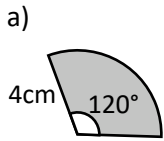
Calculate the **perimeter** of the sectors (leave your answer correct to 2 decimal places):

i)
205°
5cm

j)
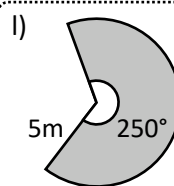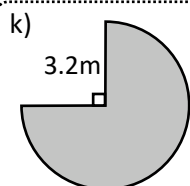160°
2.5m

k)
3.2m

l)
5m 250°

m)
245°
6.1cm

n)
4.8cm
65°
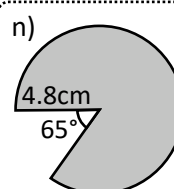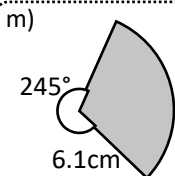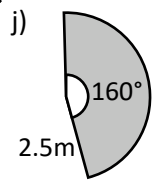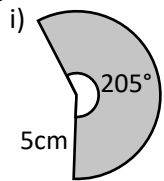
📋 **Exam question:**

Farmer Collins fertilises his field. He uses an industrial spray which rotates around an angle of 120° at a distance of 25m.
He cordons off the area being sprayed with rope.
What is the length of the rope needed to the nearest metre.
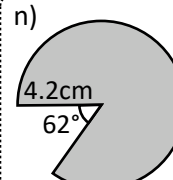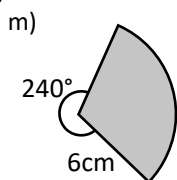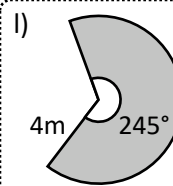
25m

120°
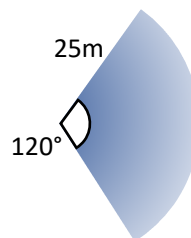
Area of sectors

Name:

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Calculate the area of these sectors (leave your answer correct to 2 decimal places):

a)
4cm 120°

b)
60° 7cm

c)
170°
3m

d)
200°
5cm

e)
3.1m

f)
4.2m 220°

g)
8cm
50°

h)
254°
9m

i)
165°
2m

j)
210°
4cm

k)
3.7m

l)
4m 245°

m)
240°
6cm

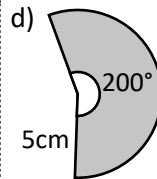n)
4.2cm
62°
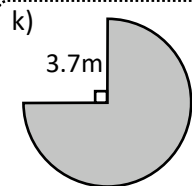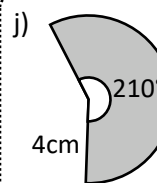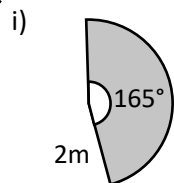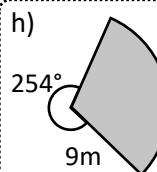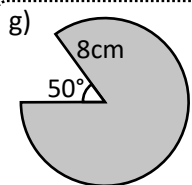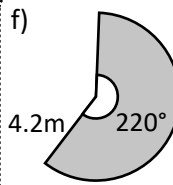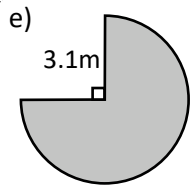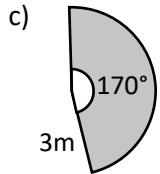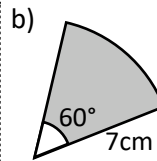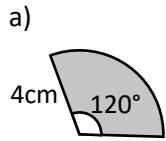
Exam question:

The diagram shows a sector of a circle, centre O.
The radius of the circle is 12 cm.
The angle of the sector is 140°.
Calculate the area of the sector.
Give your answer correct to 3 significant figures

12cm
140°