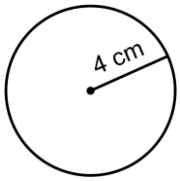
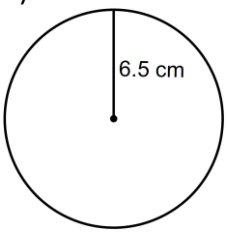
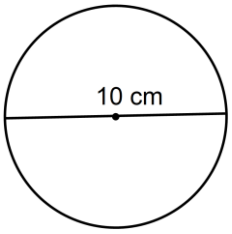
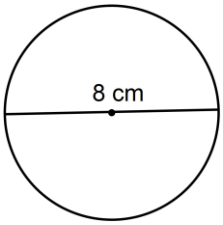
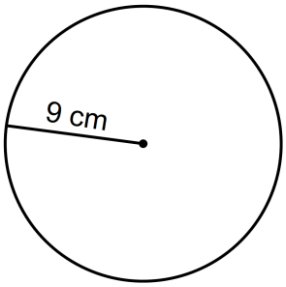
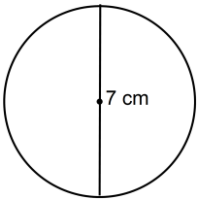
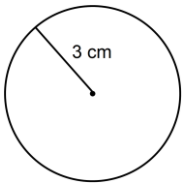
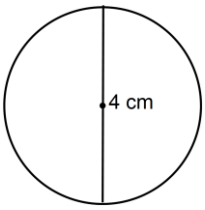
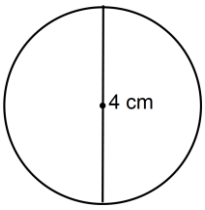
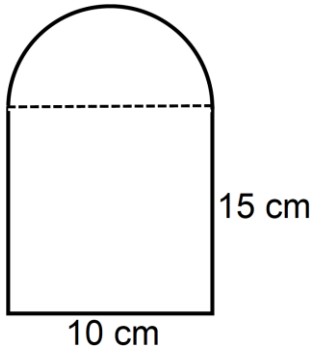
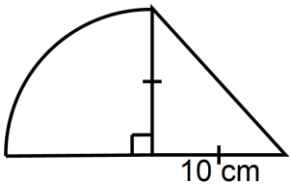
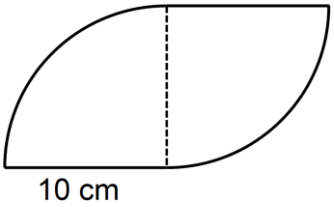
Circles

Foundation: Geometry and Measures

I can…..

1	Calculate the area of the circles (answers to 1 decimal place) a)  b)  c) 	Calculate the area of a circle
2	Calculate circumference of the circles (answers to 1 decimal place) a)  b)  c) 	Calculate the circumference of a circle
3	Leaving your answers in terms of π calculate a) the area  b) the circumference  c) the area 	Calculate the area and circumference of as circle in terms of π
4	Calculate the area and perimeter of each shape (answers to 1 decimal place) a)  b)  c) 	Calculate the area and perimeter of compound shapes

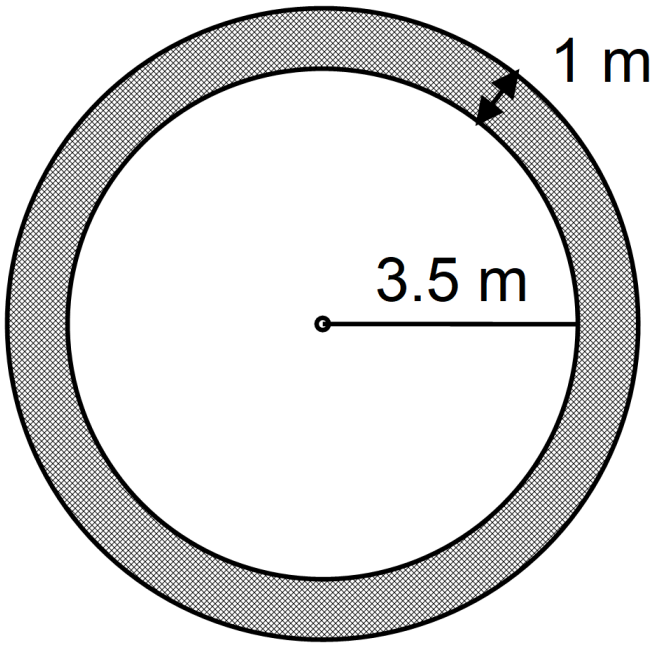
5 Pizzas are sold in 2 different sizes

10 inch diameter £8.50

12 inch diameter £10.00

Which is the best value for money?

6 A large circular pond is to be surrounded by a gravel path 1 m wide. Gravel costs £4.50 for a bag to cover 0.8 m^2, plus a £9.00 delivery charge. (Only full bags are available)

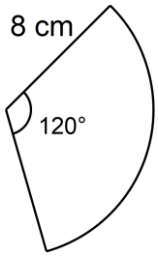


Calculate the total cost.

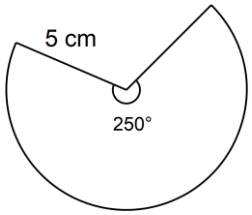
Solve problems involving circles

7 Calculate the arc length and area of each of the following sectors

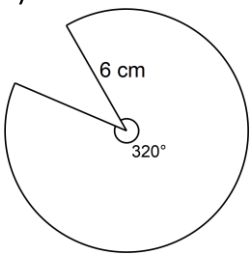
a)



b)



c)

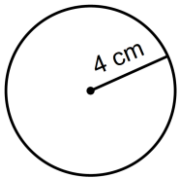
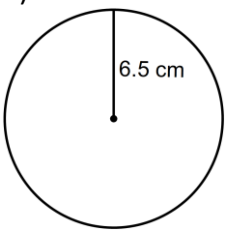
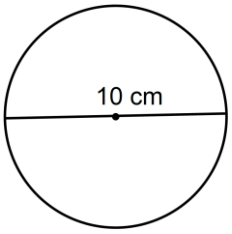
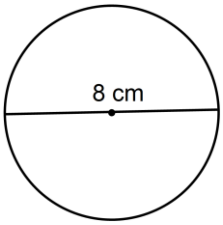
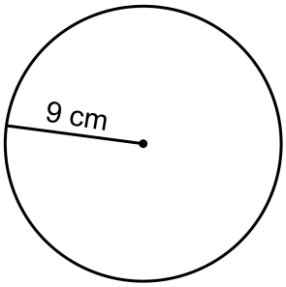
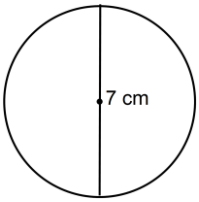
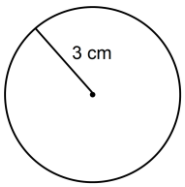
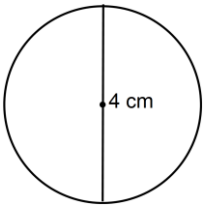
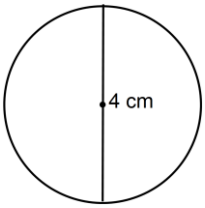
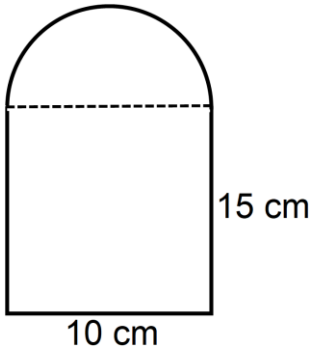
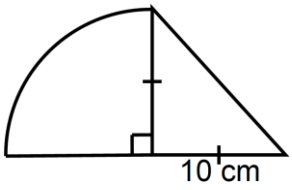
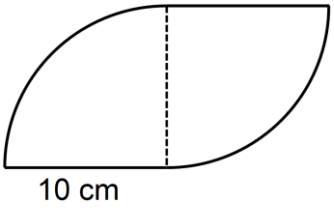


Calculate the arc length and area of sectors

Circles

Foundation: Geometry and Measures

I can…..

1	Calculate the area of the circles (answers to 1 decimal place) a) 50.3 cm^2  b) 132.7 cm^2  c) 78.5 cm^2 	Calculate the area of a circle
2	Calculate circumference of the circles (answers to 1 decimal place) a) 25.1 cm  b) 56.5 cm  c) 22.0 cm 	Calculate the circumference of a circle
3	Leaving your answers in terms of π calculate a) the area 9π cm^2  b) the circumference 4π cm  c) the area 4π cm^2 	Calculate the area and circumference of as circle in terms of π
4	Calculate the area and perimeter of each shape (answers to 1 decimal place) a) 189.3 cm^2  b) 128.5 cm^2  c) 157.1cm^2 	Calculate the area and perimeter of compound shapes

5 Pizzas are sold in 2 different sizes

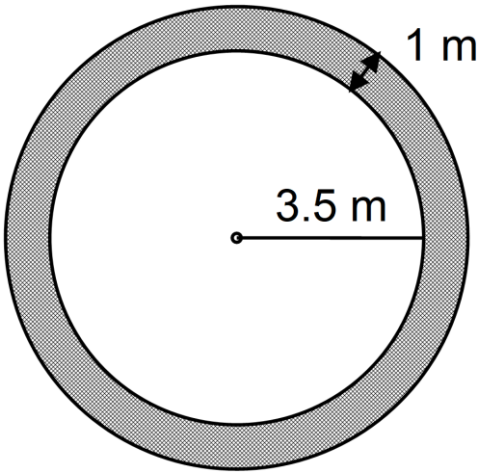
10 inch diameter £8.50 $25\pi \div 8.5 = 9.24$

12 inch diameter £10.00 $36\pi \div 10 = 11.31$

Which is the best value for money?

12 inch diameter gives better value for money 11.31 inches^2 per £1

6 A large circular pond is to be surrounded by a gravel path 1 m wide. Gravel costs £4.50 for a bag to cover 0.8 m^2, plus a £9.00 delivery charge. (Only full bags are available)



Calculate the total cost.

Number of bags $= \pi(4.5^2-3.5^2)/0.8$

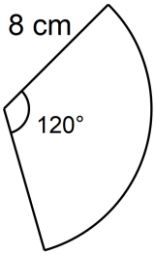
Cost = 32*4.5+9

= £153

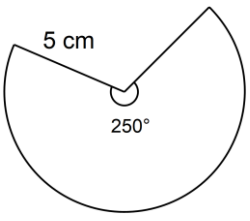
Solve problems involving circles

7 Calculate the arc length and area of each of the following sectors

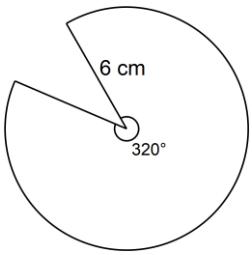
a) Arc Length = 16.8cm
Area = 67.0 cm^2



b) Arc Length = 21.8 cm
Area = 54.5 cm^2



c) Arc Length = 33.5 cm
Area = 100.5 cm^2



Calculate the arc length and area of sectors