

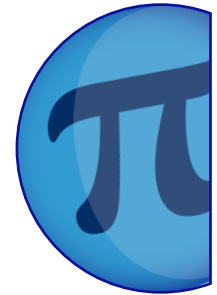


# Beating the U-Boats

NAME: .....

CLASS: .....

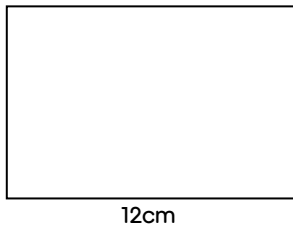
DATE: .....



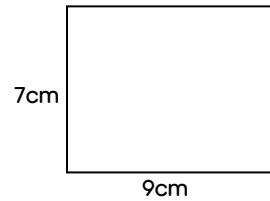
## Basic

1) Calculate the perimeters and areas of the following rectangles:

a)

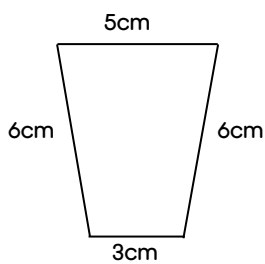


b)

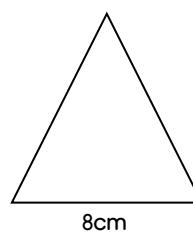


2) Calculate the perimeters of the following shapes:

a)

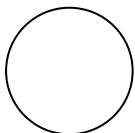


b)

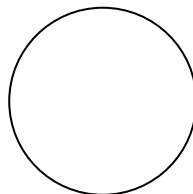


3) Measure the diameter of each of these circles:

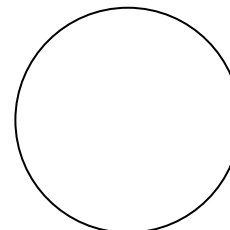
a)



b)



c)



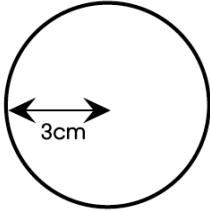


# Beating the U-Boats

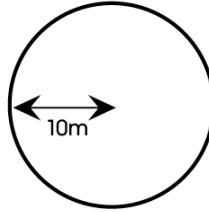
## Basic

4) Calculate the circumferences and areas of the following circles:

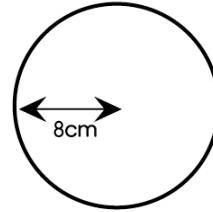
a)



b)



c)



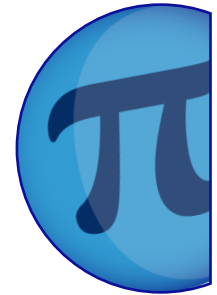


# Beating the U-Boats

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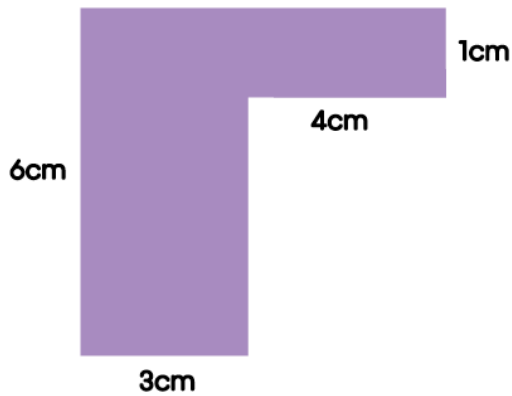
DATE: .....



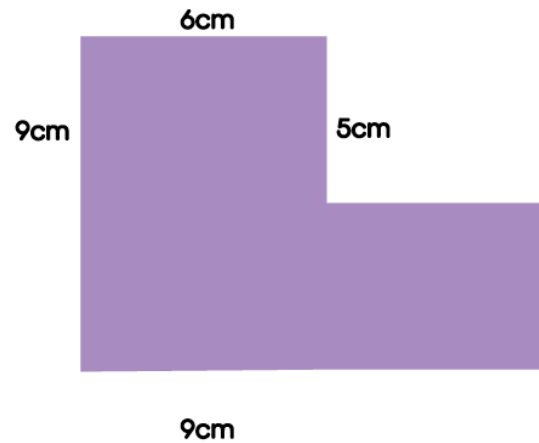
## Core

1) Calculate the perimeters and areas of the following shapes:

a)

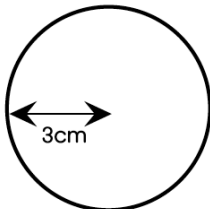


b)

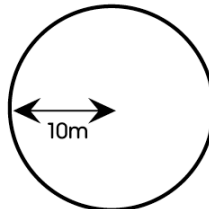


2) Calculate the circumferences and areas of the following circles:

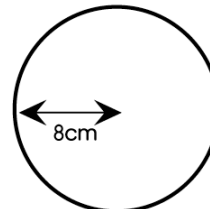
a)



b)



c)





# Beating the U-Boats

## Core

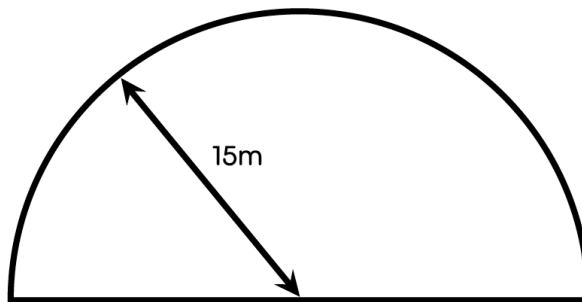
3) Complete the following table for each circle. Give your answers to three significant figures.

Radius (cm)	Diameter (cm)	Circumference (cm)	Area (cm <sup>2</sup> )
2			
	8		
		30	
10			
		200	
	100		

4) The goal area of a hockey pitch is shown here with a radius of 15m. Find:

a) the perimeter of the goal area .

b) the area enclosed by the goal area.



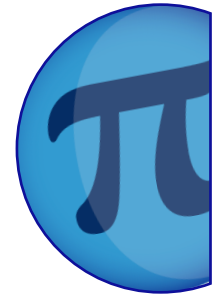


# Beating the U-Boats

NAME: .....

CLASS: .....

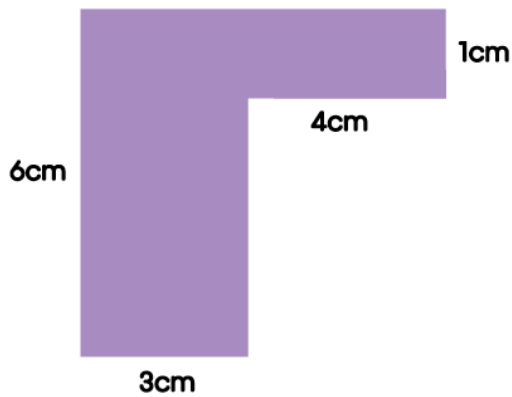
DATE: .....



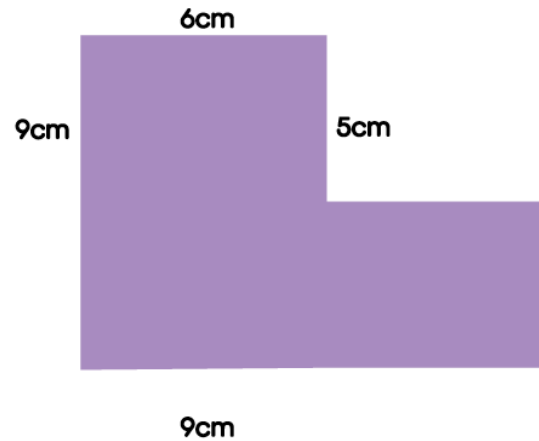
## Advanced

1) Calculate the perimeters and areas of the following shapes:

a)



b)



2) Complete the following table for each circle. Give your answers to three significant figures.

Radius (cm)	Diameter (cm)	Circumference (cm)	Area (cm <sup>2</sup> )
2			
	8		
		30	
10			
		200	
	100		



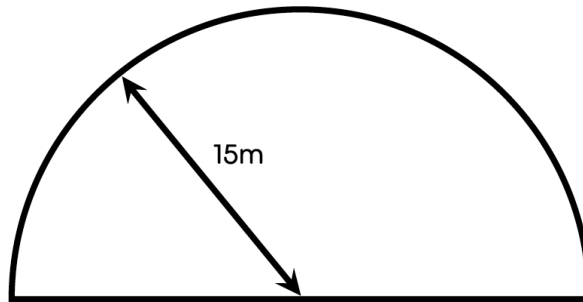
# Beating the U-Boats

## Advanced

3) The goal area of a hockey pitch is shown here with a radius of 15m. Find:

a) the perimeter of the goal area.

b) the area enclosed by the goal area.

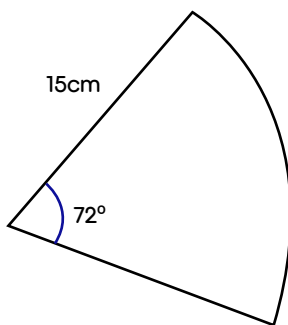


4) Calculate:

a) the area of the sector.

b) the length of the arc.

c) the perimeter of the sector.





# Beating the U-Boats

## ANSWERS

### Basic

- 1) a) 40cm, 96cm<sup>2</sup>                      b) 32cm, 63cm<sup>2</sup>  
2) a) 20cm                                b) 24cm  
3) a) 1.6cm                                b) 2.3cm                                c) 2.8cm  
4) a) 18.8cm, 28.3cm<sup>2</sup>                b) 62.8m, 314m<sup>2</sup>                      c) 50.2cm, 201cm<sup>2</sup>

### Core

- 1) a) 26cm, 22cm<sup>2</sup>                      b) 36cm, 66cm<sup>2</sup>  
2) a) 18.8cm, 28.3cm                      b) 62.8m, 314m<sup>2</sup>                      c) 50.2cm, 201cm<sup>2</sup>

3)

Radius (cm)	Diameter (cm)	Circumference (cm)	Area (cm <sup>2</sup> )
2	4	12.6	12.6
4	8	25.1	50.2
4.78	9.55	30	71.7
10	20	62.8	314
31.8	63.7	200	3180
50	100	314	7850

- 4) a) 77.1m                                b) 353m<sup>2</sup>

### Advanced

- 1) a) 26cm, 22cm<sup>2</sup>                      b) 36cm, 66cm<sup>2</sup>

2)

Radius (cm)	Diameter (cm)	Circumference (cm)	Area (cm <sup>2</sup> )
2	4	12.6	12.6
4	8	25.1	50.2
4.78	9.55	30	71.7
10	20	62.8	314
31.8	63.7	200	3180

- 3)     a) 77.1m                                b) 353m<sup>2</sup>  
4)     a) 141cm<sup>2</sup>                                b) 18.8cm                                c) 48.8cm