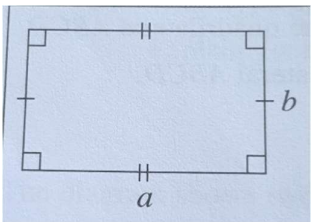
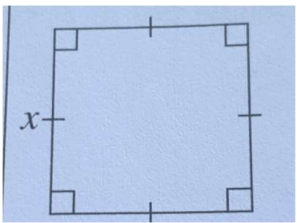
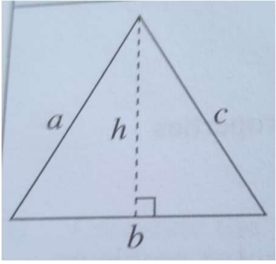
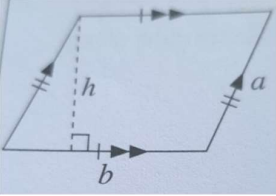
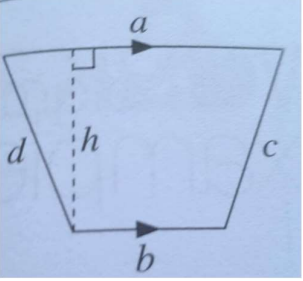
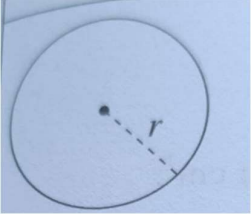
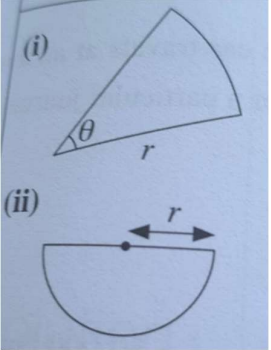


Topic 12: Perimeter and Area of Plane Figures

Notes:

1. The **perimeter** of a two-dimensional figure refers to the length of the outline of the figure.
2. The **area** of a two-dimensional figure refers to the amount of surface that covers the figure.
3. The following table shows the area and perimeter of some common geometrical figures.

Diagram	Geometrical Figure	Formula for Area (square units)	Formula for Perimeter (units)
	Rectangle	ab	$2(a + b)$
	Square	x^2	$4x$

	Triangle	$\frac{bh}{2}$	$a + b + c$
	Parallelogram	bh	$2(a + b)$
	Trapezium	$\frac{(a + b)h}{2}$	$a + b + c + d$
	Circle	πr^2	$2\pi r$ or πD
	a. Sector b. Semicircle	a. $\frac{\theta}{360^\circ} (\pi r^2)$ b. $\frac{\pi r^2}{2}$	$\frac{\theta}{360^\circ} (2\pi r) + 2r$ or $\frac{\theta}{360^\circ} (\pi D) + D$ $\pi r + 2r$ or $\frac{\pi D}{2} + D$

4. To calculate the perimeter or area of a composite figure, find the sum or difference in perimeter or area of the various simple geometric figures, such as triangle, parallelogram, trapezium or circle that make up the composite figures.

5. Conversion of units:

a) $1\text{m}^2 = (100\text{cm})^2 = 10\,000\text{cm}^2$

b) $1\text{cm}^2 = (10\text{mm})^2 = 100\text{mm}^2$