Quantitative Methods Areas

Module No. Cons 1012

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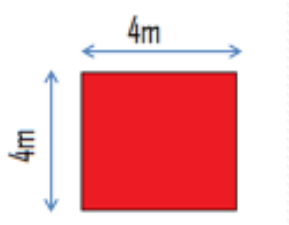
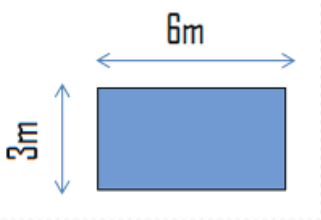
Areas



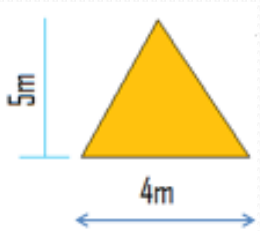
Square Length x Width = Area

4 x 4 = 16m²



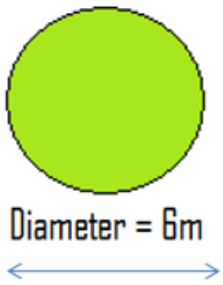
Rectangle Length x Width = Area

6 x 3 = 18m²



Triangle ½ Base x Perp. Height = Area

½ (4m x 5m) = 10m²



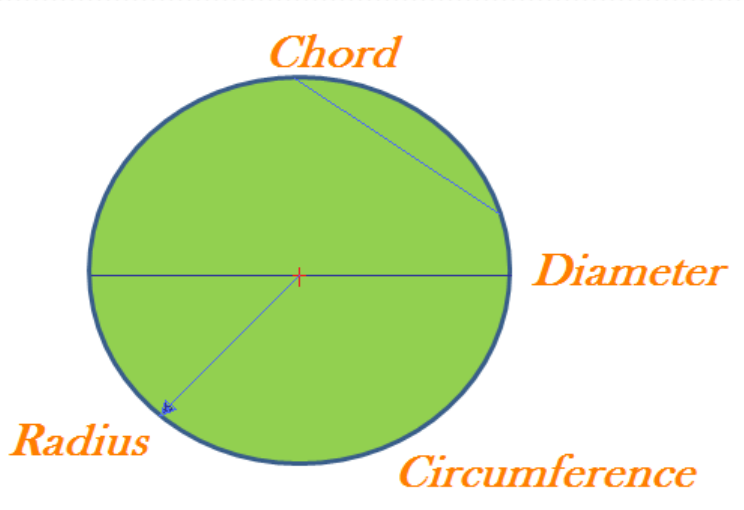
Circle Πr^2 = Area

3.14 x 3 x 3 = 28.27 m²

Ø = diameter r = radius

Parts of a Circle

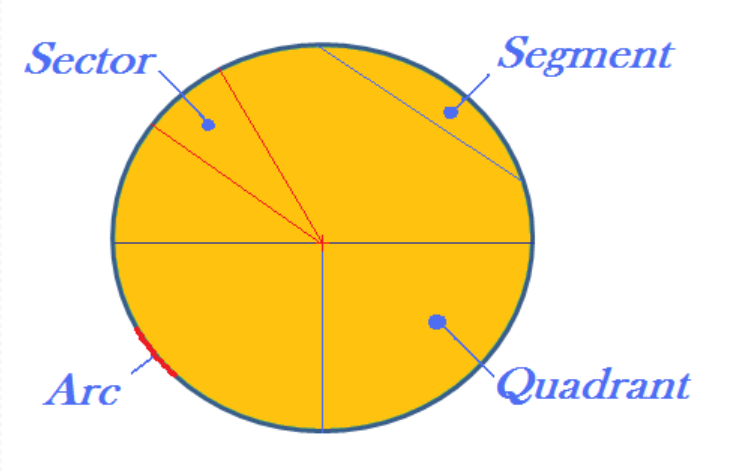
- A circle is a plane figure that has one continuous line called its Circumference.



- A straight line that touches the circumference in two places is called a Chord.
- The longest chord in a circle is the Diameter.
- The Diameter crosses the circles centre point.
- The Radius is the distance from the centre point to the circumference.
- Formula for Perimeter of Circle is $2\Pi r$.
- Formula for Area of circle is Πr^2

Parts of a Circle

- The area between a chord and the circumference is called a Segment.



- The area between two radii is called a Sector.
- A section of the circumference is called an Arc.
- A quarter of a circle is called a Quadrant.
- Half of a circle is called a Semicircle.
- Formula for these shapes are in the log book.

Area Sheet 1

- Find the area of the following Squares:
- 1 Side 32m
- 2 Side 14m
- 3 Side 21m
- Find the area of the following Rectangles:
- 1 Length 4.71m width 2.1
- 2 Length 6.23m width 3m
- 3 Length 4.25m width 1.05
- Find the area of the following Triangles:
- 1 Base 6 Perp. Height 4.12
- 2 Base 3 Perp. Height 5.05
- 3 Base 4 Perp. Height 3.31
- Find the area of the following Circles:
- 1 Diameter = 12m
- 2 Radius = 8.21m
- 3 Diameter = 42m

Area Sheet 1 Answers

- Find the area of the following Squares:
- 1 32 x 32 = 1024m²
- 2 14 x 14 = 196m²
- 3 21 x 21 = 441 m²
- Find the area of the following Rectangles:
- 1 4.71m x 2.1 = 9.891m²
- 2 6.23m x 3m = 18.69m²
- 3 4.25m x 1.05 = 4.463 m²
- Find the area of the following Triangles:
- 1 ½(6 x 4.12) = 12.36m²
- 2 ½ (3 x 5.05) = 7.57m²
- 3 ½ (4 x 3.31) = 6.62m²
- Find the area of the following Circles:
- 1 3.14 x 6 x 6 = 113.04m²
- 2 3.14 x 8.21 x 8.21 = 211.64m²
- 3 3.14 x 21 x 21 = 1384.74m²