APTITUDE - AREA CALCULATION

Important Fact and Formulae

Following are important facts and formulaes used in questions for area calculations.

Rectangle/Square

- Area of a rectangle = Length x Breadth

- Length of a rectangle = Area / Breadth

- Breadth of a rectangle = Area / Length

- Perimeter of a rectangle = 2(Length + Breadth)

- Area of 4 walls = 2(length+ Breadth) x height

- Area of a Square = $(side)^2$ = $1/2(diagonal)^2$

Triangle

- Area of a triangle= (1/2 x Base x Height)

- $= \sqrt{\{S(S-A)\ (S-B)(S-C)\}}$, where S=1/2(a+b+c)

- Area of equilateral triangle = $\sqrt{3}/4$ x a^2

- Radius of a in circle of an equilateral triangle of side a = $a/2\sqrt{3}$

- Radius of a circumcircle of an equilateral triangle of side a =$a/\sqrt{3}$

- Radius of in circle of a triangle=   /S, Where s=1/2(a+b+c)

Circle

- Area of a circle= πR^2

- Circumference = $2\pi R$

- Arc length= $2\pi R\vartheta/360$, where ϑ is a central angle.

- Area of Sector=1/2(arc length x R) = $\pi R^2\vartheta/360$

- Area of Semicircle= $1/2\pi R^2$

Other shapes

- Area of a parallelogram = (base x height)

- Area of a rhombus= 1/2(product of diagonals)

- Area of a trapezium= 1/2 (sum of parallel sides) x (distance between them)

Solved Examples

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