Chapter 2: Area and Circumference of Circle

1. The perimeter of a circle is called its circumference.
2. The ratio of the circumference of a circle to its diameter is the same for all circles, regardless of their sizes.

   This constant ratio is denoted by pi whose approximate value is $\frac{22}{7}$ or 3.14

   i.e. $$\frac{Circumference}{Diameter} = \pi$$
   $$\Rightarrow \frac{C}{2r} = \pi$$
   $$\Rightarrow C = 2\pi r$$
3. The number π is not a rational number. It is an irrational number.
4. The circumference C of a circle of radius r is given by $C = 2\pi r$, or $C = \pi d$, where $d = 2r = diameter$.
5. Area A of a circle or radius r is given by $A = \pi r^2$.
6. Radius of a circle can be calculated using below formulas:
   a. $r = \frac{d}{2}$
   b. $r = \frac{C}{2\pi}$
   c. $r = \sqrt{\frac{A}{\pi}}$