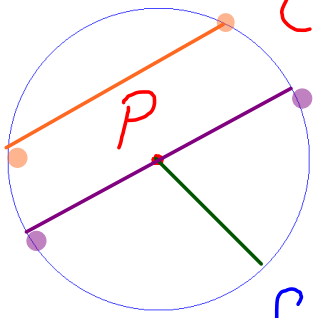
8.5. Circles & Circumferences

May 07, 2007



Circle P : $\odot P$

The set of all Points in the Same Plane having the same Distance from a common Pt. known as the Center.

radius: (r): the distance from the center of the Circle to Any Pt. on the Circle

Diameter: (d): a chord that contains the center

Chord: Any Segment whoes endpoints are points on the Circle.

The Relationship Between (d & r)

$d = 2r$ same $\frac{1}{2}d = r$

Circumference: the distance around a ⊙

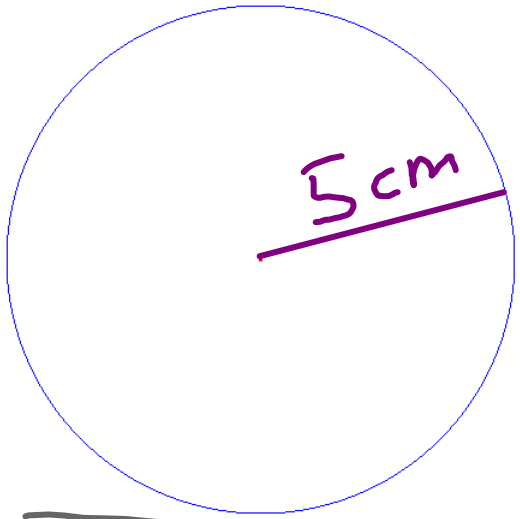
- Every Circle is divisable by π (pi)

diameter: $C = d\pi$

radius: $C = 2\pi r$

for us $\pi = 3.14$

find the Circumference



Here we have the Radius
so...

order
#, π, units

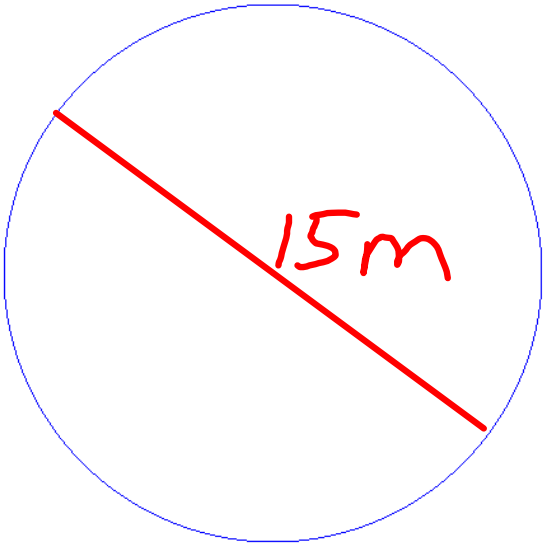
$$C = 2\pi r$$

$$= 2\pi(5\text{cm})$$ → exact

$$= 10\pi\,\text{cm}$$

$$\approx 10(3.14)\,\text{cm}$$

$$\approx 31.4\,\text{cm}$$ → approx



Find the Cir.

here we have the diameter

$$C = d\pi$$

$$= 15\pi \text{ m} \quad \Rightarrow \text{exact}$$

$$\approx 15(3.14)\text{ m}$$

$$\approx 47.1\text{ m} \quad \Rightarrow \text{approx}$$

The C. is 125.6m of this ⊙
find the d & r

$$C = d\pi$$

$$125.6m = d\pi$$

$$\frac{125.6\,m}{3.14} = \frac{d \cdot 3.14}{3.14}$$

$$\frac{100}{5} = \frac{x \cdot 5}{5}$$

$$40m = d$$

$$d = 2r$$

$$\frac{40m}{2} = \frac{2r}{2}$$

$$20m = r$$

O.T.L.

① pg 259: Exp. 1-8 all

② pg 260: Written:
1, 4, 7, 10, 13, 17