1. find the radius 2. follow directions

1. Find the circumference of circle T in which A = $16x^2\pi\ mm^2$

1. $\frac{16x^2\pi}{\pi} = \frac{\pi r^2}{\pi}$

$\sqrt{16x^2} = \sqrt{r^2}$

$4x = r$

2. $C = 2\pi r$

$C = 2\pi(4x)$

$C = 8x\pi$ mm

2. Find the diameter of circle L in which C (circumference) = 2π km.

1. $\frac{2\pi}{2\pi} = \frac{2\pi r}{2\pi}$

$1 = r$

2. $r = 1$

$d = 2r$

$d = 2(1) = 2$ km

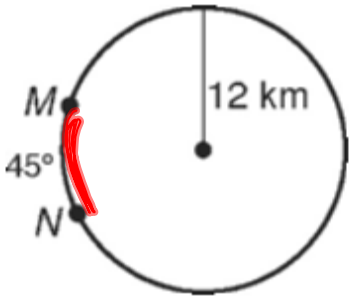
3. Find the radius of a circle in which A = $64x^2\pi\ mm^2$

1. $\frac{64x^2\pi}{\pi} = \frac{\pi r^2}{\pi}$

$\sqrt{64x^2} = \sqrt{r^2}$

$8x = r$ mm

5. $\overset{\frown}{MN}$ =

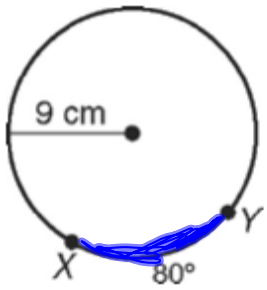


$\frac{45}{360} = .125$

$2\pi(12)(.125)$ ← rounded to hundredths unless it terminates

$= 9.42$ km

6. $\overset{\frown}{XY}$ =



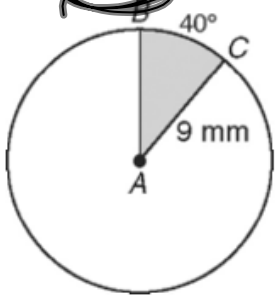
$\frac{80}{360} = .22$

$2\pi(9)(.22)$

$= 12.4$ cm

πr^2

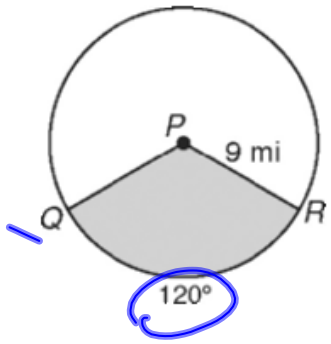
7. Find the area of the following shaded sector



$\frac{40}{360} = .11$

$\pi(9)^2(.11)$

≈ 30 mm^2



$\pi(9)^2(.33)$

≈ 84 mi^2

$\frac{120}{360} = \frac{1}{3} = .33$