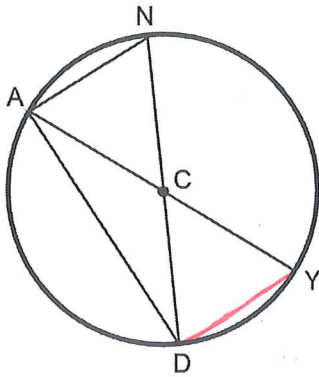


Geometry - 10.1 - Circles and Circumference

Ex 1



a) Name the circle.

Circle C

$\odot C$

b) Name a radius of the circle.

\overline{AC} , \overline{NC} , \overline{DC} , or \overline{YC}

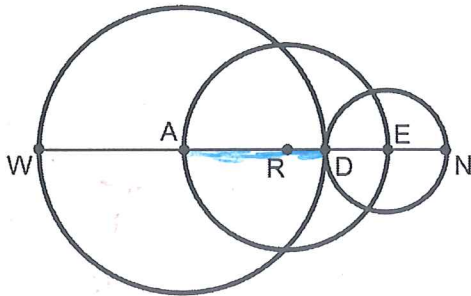
c) Name a chord of the circle.

Connects any 2 pts on a \odot
 \overline{AY} , \overline{DN} , \overline{AD} , or \overline{AN}

d) Name a diameter of the circle.

\overline{AY} or \overline{DN}

Ex 2 - The diameters of Circle A, Circle R, and Circle E are 22 mm, 16 mm, and 10 mm, respectively. Find WE and AD.



$$WE = \overbrace{WD}^{\text{Diameter of } \odot A} + \overbrace{DE}^{\text{Radius of } \odot E}$$

Diameter of $\odot A$

Radius of $\odot E$

$$WE = 22 + 5 = 27 \text{ mm}$$

$$AD = AR + RD$$

$$= RE - DE$$

$$= 8 + (8 - 5)$$

$$= 8 + 3$$

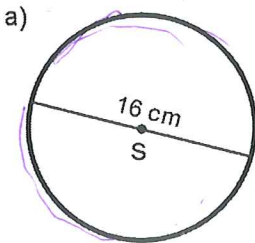
$$= 11 \text{ mm}$$

Circumference of a Circle

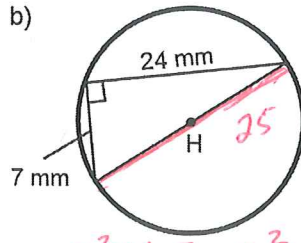
The circumference of any circle is:

$$C = 2\pi r \quad \text{or} \quad C = \pi \cdot d$$

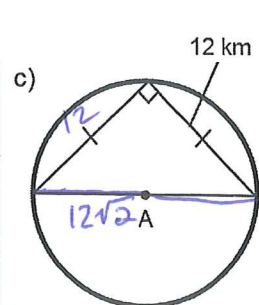
Ex 3 - Find the exact circumference of the circles below.



$$\begin{aligned} C &= \pi \cdot d \\ &= \pi \cdot 16 \text{ cm} \\ &= 16\pi \text{ cm} \\ &\approx 50.27 \text{ cm} \end{aligned}$$



$$\begin{aligned} C &= \pi \cdot 25 \text{ mm} \\ C &= 25\pi \text{ mm} \\ &\approx 78.54 \text{ mm} \\ a^2 + b^2 &= c^2 \\ 7^2 + 24^2 &= c^2 \\ 49 + 576 &= c^2 \\ \sqrt{625} &= \sqrt{c^2} \\ 25 &= c \end{aligned}$$



$$\begin{aligned} 1:1:\sqrt{2} \\ 12:12:12\sqrt{2} \\ d &= 12\sqrt{2} \\ C &= 12\sqrt{2} \cdot \pi \text{ km} \\ &\approx 53.31 \text{ km} \end{aligned}$$