21

arc / angle

$\frac{8.73}{2\pi(10)} = \frac{x}{360}$

$2\pi(10) = 62.8$

$\frac{62.8x}{62.8} = \frac{3142}{62.8}$

$x = 50°$

22

$\frac{7.5}{x} = \frac{76}{360}$

$\frac{76x}{76} = \frac{2700}{76}$

$x = 35.5$

23

$\frac{38.95}{2\pi r} = \frac{260}{360}$

$260(2\pi)r$

$520\pi r = \frac{14022}{520}$

$\div \pi$

$r = 8.6$

# Warm-up

$A = \pi r^2$ $\quad C = 2\pi r$

Find the area

① $r = 8cm$

② $r = 1\frac{1}{3}$ m.

③ $C = 6\pi ft$

$\frac{6\pi}{2\pi} = \frac{2\pi r}{2\pi}$ $\quad r = 3$

$A = \pi r^2$

④ Solve $x^2 = \frac{100}{\pi}$

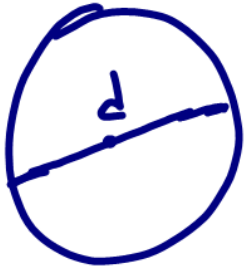
# 11.5 Area of Circles & Sectors

$A = \pi r^2$

## Find

(5) Diameter

$A = 113.1 m^2$




$A = \pi r^2$

$113.1 = \pi r^2$

$36 = r^2$

$r = 6 m$

(6) Area


$A = \pi r^2$

$A = \pi (2.5)^2$

$= 19.6 m^2$

$\frac{\text{Length } \overset{\frown}{AB}}{\text{Circumf}} = \frac{m\overset{\frown}{AB}}{360}$ } Same thing w/area

Areas of Sector

$\frac{\text{Area of } \overset{\frown}{AB}}{\text{Area } \odot} = \frac{m\overset{\frown}{AB}}{360}$

$\frac{\text{Area of } \overset{\frown}{AB}}{\pi r^2} = \frac{m\overset{\frown}{AB}}{360}$


Sector (slice of pie)

Find small & large Sector

Small

$\frac{x}{64\pi} = \frac{70}{360}$

$A = \pi \cdot 8^2$

large

$\frac{x}{64\pi} = \frac{290}{360}$


$360 - 70 = 290$

$360x = 1474.3$

$360$

$x = 39.1$