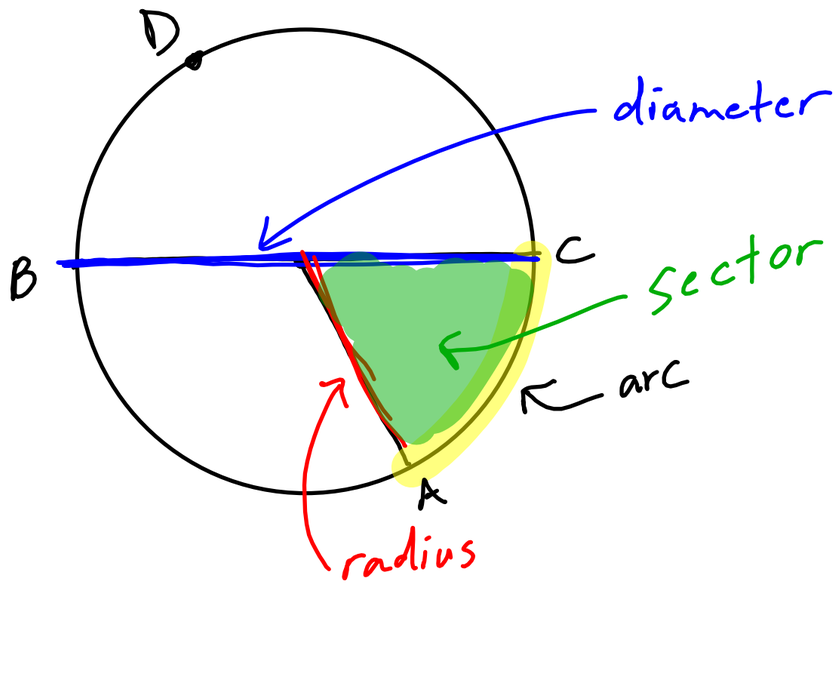
Arcs & Sectors of Circles



- major arcs → greater than 180° (name w/ 3 pts.)

  EX → $\overset{\frown}{ABC}$

- minor arcs → less than 180° (name w/ 2 pts.)

  EX → $\overset{\frown}{AC}$

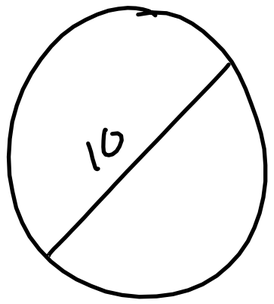
- semi-circles → =180° (name w/ 3 pts.)

  EX → $\overset{\frown}{CAB}$

- Circumference → "perimeter" of circle

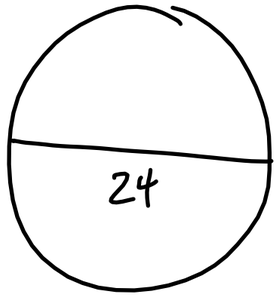
↳ $C = 2\pi r$ OR $C = \pi d$

EX →



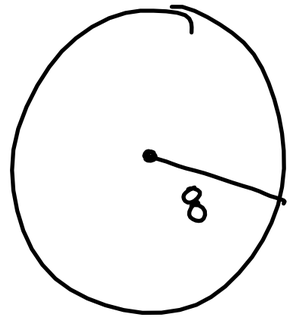
$C = 10\pi$

EX →



$C = 24\pi$

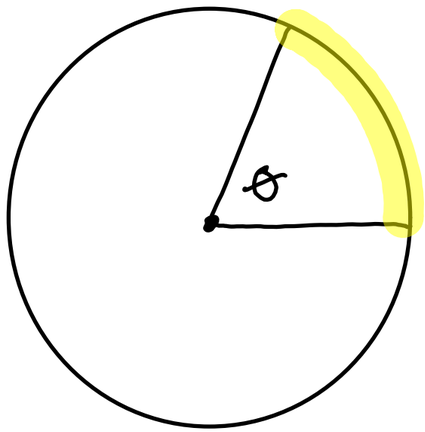
EX →



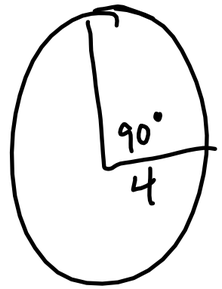
$C = 16\pi$

- Arc Length

$\frac{\text{angle}}{360^\circ} \cdot \pi d$



EX →

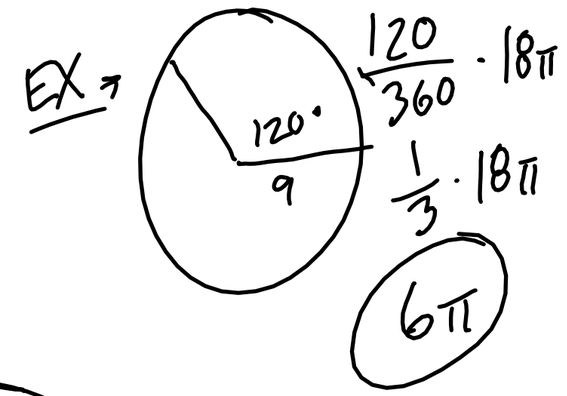


$\frac{90}{360} \cdot 8\pi$

$\frac{1}{4} \cdot 8\pi$

2π

EX →

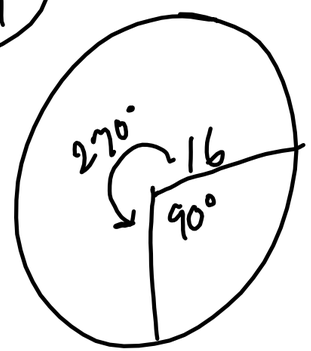


$\frac{120}{360} \cdot 18\pi$

$\frac{1}{3} \cdot 18\pi$

6π

EX →

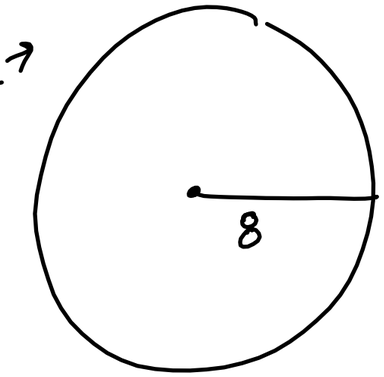


$\frac{270}{360} \cdot 32\pi$

$\frac{3}{4} \cdot 32\pi = 24\pi$

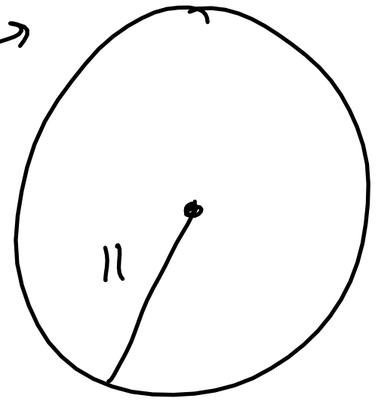
- Area
  ↳ $A = \pi r^2$

EX →



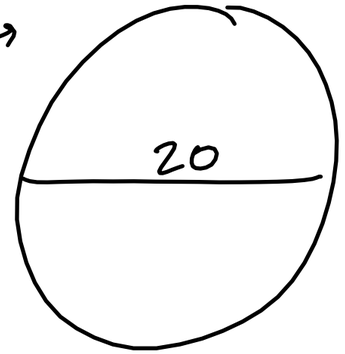
$A = 64\pi$

EX →



$A = 121\pi$

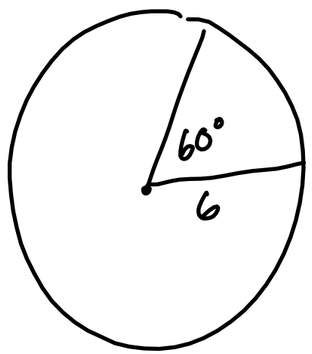
EX →



$A = 100\pi$

- Sector Area
  $\frac{\text{angle}}{360} \cdot \pi r^2$

EX →

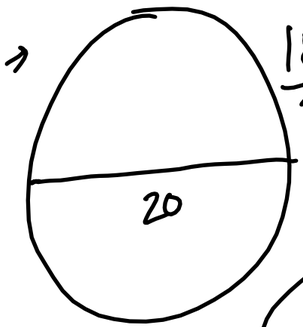


$\frac{60}{360} \cdot 36\pi$

$\frac{1}{6} \cdot 36\pi$

6π

EX →

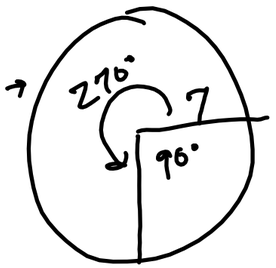


$\frac{180}{360} \cdot 100\pi$

$\frac{1}{2} \cdot 100\pi$

50π

EX →



$\frac{270}{360} \cdot 49\pi$

$\frac{3}{4} \cdot \frac{49\pi}{1}$

$\frac{147}{4}\pi$

HW: p. 654 → 10-48 even (omit 36)

p. 663 → 9-33 mult. 3, 48