NOTES 11.2
ARC LENGTH & AREA OF SECTORS

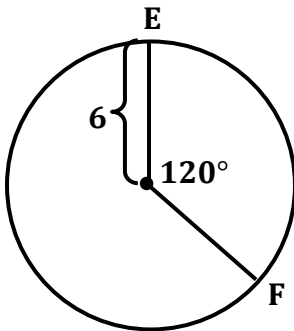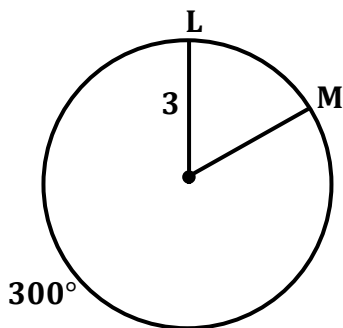| Definition	Formula
ARC LENGTH:	$$\text{ARC LENGTH} = \frac{x^\circ}{360^\circ} \cdot 2\pi r$$

EXAMPLE 1: Find the length of $\overset{\frown}{EF}$ below.

E

6

120°

F

$$\overset{\frown}{EF} = \underline{\hspace{2in}}$$

EXAMPLE 2: Find the length of $\overset{\frown}{LM}$ below.

L

3

M

300°

$$\overset{\frown}{LM} = \underline{\hspace{2in}}$$

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Definition	Formula
SECTOR:	$$\text{SECTOR AREA} = \frac{x^{\circ}}{360^{\circ}} \cdot \pi r^2$$

EXAMPLE 3: Find the area of the sector below.

E

6

120°

F

Sector Area = _____

EXAMPLE 4: Find the length of $\overarc{AB}$ and the area of the sector.

A

3   20°

B

O

$\overarc{AB}$ **= _____**

Sector Area = _____

EXAMPLE 5: Find the length of $\overarc{AB}$ and the area of the sector.

A

5

210°   O

B

$\overarc{AB}$ **= _____**

Sector Area = _____

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