

# Arc Length-Sector Area

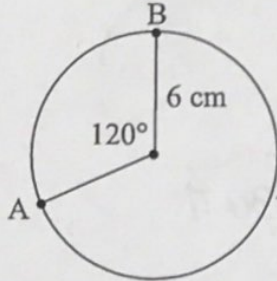
Name: \_\_\_\_\_

Wells Worksheet (W2)

Date: \_\_\_\_\_

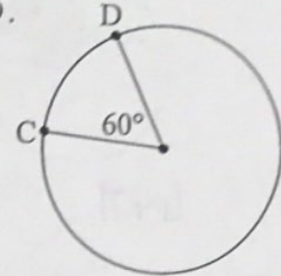
Block: \_\_\_\_\_

1. Find the length of arc  $AB$ .



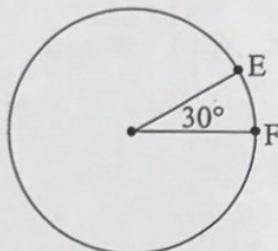
Arc:  $4\pi$

2. The diameter is 24 cm. Find the length of arc  $CD$ .



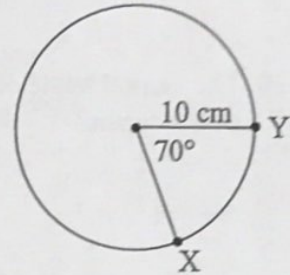
Arc:  $4\pi$

3. The length of arc  $EF$  is  $5\pi$  in. Find the length of the radius.



Radius: 30

4. Find the length of arc  $XY$ .



Arc:  $\frac{35}{9}\pi$

5. A circle has an arc whose measure is  $80^\circ$  and whose length is  $88\pi$ . What is the diameter of the circle?

396

6. A circle has a circumference whose length is  $25\pi$ . Find the length of an arc whose central angle is  $90^\circ$ .

$\frac{25}{4}\pi$

7. Find the measure of the central angle of an arc if its length is  $14\pi$  and the radius is 18.

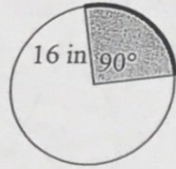
$140^\circ$

# Arc Length-Sector Area

Name: \_\_\_\_\_

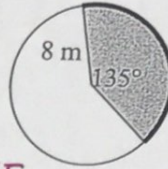
8. Calculate the sector area:

a.



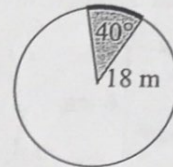
$$64\pi$$

b.



$$\frac{515}{8}\pi$$

c.



$$36\pi$$

9. The area of a circle is  $225\pi$  square inches. Find the area of the sector whose central angle is  $45^\circ$ .

$$\frac{225}{8}\pi$$

10. The central angle of a sector is  $60^\circ$  and the area of the circle is  $144\pi$ . What is the area of the sector?

$$24\pi$$

11. A circle has a radius of 12. Find the area of the sector whose central angle is  $120^\circ$ .

$$48\pi$$

12. Find the radius of a circle which has a sector area of  $9\pi$  whose central angle is  $90^\circ$ .

$$6$$

13. The central angle of a sector is  $72^\circ$  and the sector has an area of  $5\pi$ . Find the radius.

$$5$$

14. Find the measure of the central angle of a sector if its area is  $5\pi$  and the radius is 6.

$$50^\circ$$