

NAME: _____

DATE: _____

CIRCLES & AREA

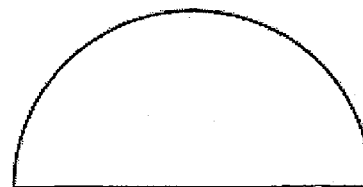
PERIOD: _____

How Do You Find the Circumference of a Semicircle?

(Topic #3)

EXAMPLE 1: Finding the Circumference of a Semicircle

A semicircle is one-half of a circle. Find the circumference of the semicircular region.



6 meters

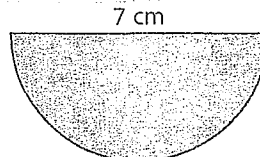
PRACTICE: Find the circumference of the semicircular region. Round to the nearest tenth.

1.



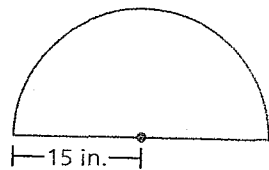
2 ft

2.



7 cm

3.



4. Find the perimeter of a semicircular region with a radius of 5 yards.

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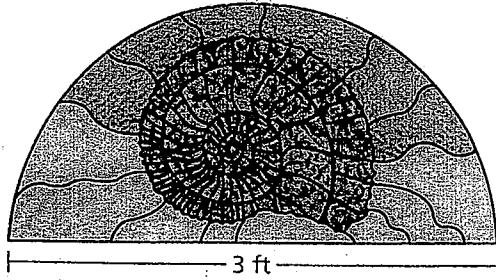
PERIOD: _____

HOMEWORK - (Topic #3)

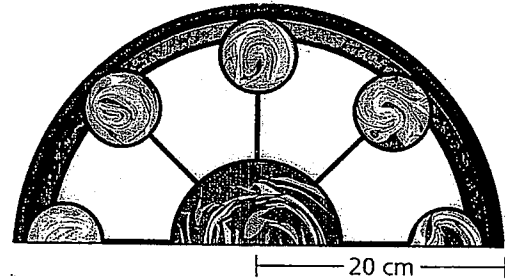
Finding the Circumference of a Semicircle

Find the circumference of each window. Round to the nearest tenth. Show all work.

1.



2.



3. Find the circumference of a circle with a radius of 5.6 mm.

4. Find the circumference of a circle with a diameter of 113 mm.

5. Find the circumference of a circle with a radius of 3 in. Leave your answer in terms of π .

6. Find the circumference of a circle with a diameter of 1 ft. Leave your answer in terms of π .

Find the radius of each circle with the given measurements. *Show all work.*

7. $C = 26\pi$ inches

8. $C = 12.8\pi$ cm

NAME: KEY
CIRCLES & AREA

DATE: _____
PERIOD: ✓

How Do You Find the Circumference of a Semicircle? (Topic #3)

EXAMPLE 1: Finding the Circumference of a Semicircle

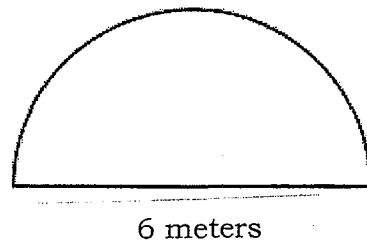
A semicircle is one-half of a circle. Find the circumference of the semicircular region.

$$C = \frac{\pi d}{2}$$

$$C = \frac{\pi(6)}{2}$$

$$C = 9.424777961..$$

$$C \approx 9.4 \text{ m}$$

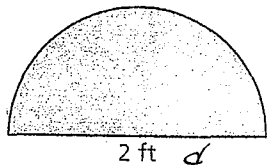


$$C = 9.4 + 6$$

$$= 15.4 \text{ m}$$

PRACTICE: Find the circumference of the semicircular region. Round to the nearest tenth.

1.



$$C = \frac{\pi d}{2}$$

$$C = \frac{\pi(2)}{2}$$

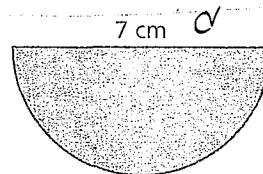
$$C = 3.141592654$$

$$C \approx 3.1 \text{ ft}$$

$$C = 3.1 + 2$$

$$= 5.1 \text{ ft}$$

2.



$$C = \frac{\pi d}{2}$$

$$C = \frac{7\pi}{2}$$

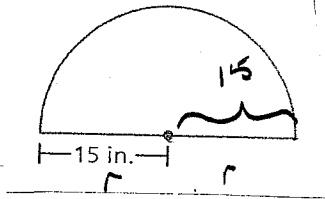
$$C = 10.99557429$$

$$C \approx 11.0 \text{ cm}$$

$$C = 11 + 7$$

$$= 18 \text{ cm}$$

3.



$$C = \frac{2\pi r}{2} = \pi r$$

$$C = \pi (15)$$

$$C = 47,1238898$$

$$C \approx 47,1 \text{ in.}$$

$$C = 47,1 + 15 + 15$$

$$= 77,1 \text{ in}$$

4. Find the perimeter of a semicircular region with a radius of 5 yards.

$$r = 5$$

$$C = \frac{2\pi r}{2} = \pi r$$

$$C = \pi 5$$

$$C = 15,7$$

$$C = 15,7 + 5 + 5$$

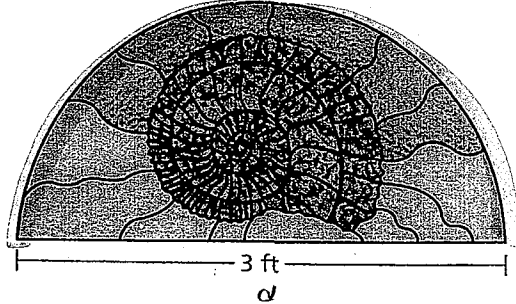
$$= 25,7 \text{ yd}$$

HOMWORK - (Topic #3)

Finding the Circumference of a Semicircle

Find the circumference of each window. Round to the nearest tenth. Show all work.

1.



$$C = \frac{\pi d}{2} \quad \text{or} \quad C = \frac{1}{2} \pi d$$

$$C = \frac{3\pi}{2} \quad C = \frac{1}{2} \pi (3)$$

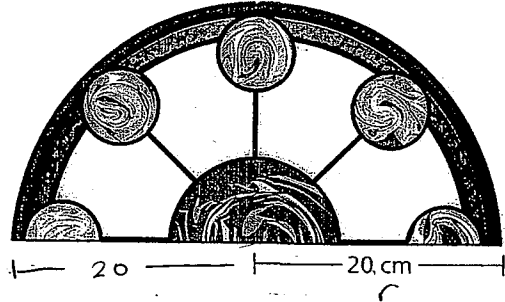
$$C = 4.71238898$$

$$C \approx 4.7$$

$$\text{TOTAL} = 4.7 + 3$$

$$= 7.7 \text{ ft}$$

2.



$$C = \frac{2\pi r}{2} \quad \text{or} \quad C = \frac{1}{2} \pi 2r$$

$$C = \frac{2\pi(20)}{2} \quad C = \frac{1}{2}(2)\pi(20)$$

$$C = 62.83185307$$

$$C \approx 62.8$$

$$\text{TOTAL} = 62.8 + 20 + 20$$

$$= 102.8 \text{ cm}$$

3. Find the circumference of a circle with a radius of 5.6 mm.

$$C = \underline{\hspace{2cm}}$$

$$r = 5.6$$

$$d = 11.2$$

$$C = 2\pi r$$

$$C = 2\pi(5.6)$$

$$C = 35.18583\dots$$

$$C \approx 35.2 \text{ mm}$$

4. Find the circumference of a circle with a diameter of 113 mm.

$$C = \underline{\hspace{2cm}}$$

$$d = 113$$

$$C = \pi d$$

$$C = \pi(113)$$

$$C = 354.99996\dots$$

$$C \approx 355.0 \text{ mm}$$

5. Find the circumference of a circle with a radius of 3 in. Leave your answer in terms of π .

$$C = \underline{\hspace{2cm}} \quad C = 2\pi r$$
$$r = 3 \quad C = 2\pi(3)$$
$$C = 6\pi \text{ in}$$

6. Find the circumference of a circle with a diameter of 1 ft. Leave your answer in terms of π .

$$C = \underline{\hspace{2cm}} \quad C = \pi d$$
$$d = 1 \quad C = \pi(1)$$
$$C = \pi \text{ ft}$$

Find the radius of each circle with the given measurements. Show all work.

7. $C = 26\pi$ inches

$$C = 2\pi r$$
$$\frac{26\pi}{2\pi} = \frac{2\pi r}{2\pi}$$
$$13 = r$$
$$13 \text{ in}$$

8. $C = 12.8\pi$ cm

$$C = 2\pi r$$
$$\frac{12.8\pi}{2\pi} = \frac{2\pi r}{2\pi}$$
$$6.4 \text{ cm} = r$$