Name: _____ Class: _____ Date: _____ Points 10

Test B

Unit 7: Circles

Chapter 2: Area

FORMULAS

Circle Circumference (Perimeter) $= \pi \cdot D = 2\pi r$

Circle Area $= \pi \cdot r^2$

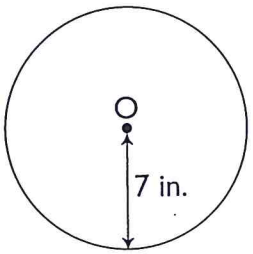
Square/Rectangle Area = width × height $= W \cdot L$

Triangle Area $= \frac{1}{2} \times$ base × height

Circle the correct option, **A**, **B**, **C** or **D**.

In this test, take $\pi = \frac{22}{7}$ unless otherwise stated.

1. O is the center of the circle. Find the area of the circle.



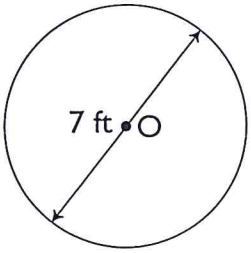
A 44 in.^{2}

B 88 in.^{2}

C 154 in.^{2}

D 616 in.^{2}

2. O is the center of the circle. Find the area of the circle.



A $28\frac{1}{2}$ ft^2

B $38\frac{1}{2}$ ft^2

C 11 ft^2

D 154 ft^2

3. The radius of a circle is $\frac{1}{4}$ in. Find its area.

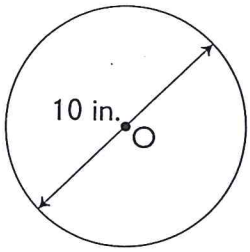
A $\frac{11}{14}$ in.^{2}

B $\frac{11}{56}$ in.^{2}

C $\frac{11}{224}$ in.^{2}

D $1\frac{4}{7}$ in.^{2}

4. The figure shows a circle with center O. Which of the following statements are true?



I. The radius of the circle is 10 in.
II. The area of the circle is 25π in.^{2}.
III. The diameter of the circle passes through the center of the circle.

A I & II

B II & III

C I & III

D All of the above

5. The radius of a circle is 6 cm. Find its area. (Take $\pi = 3.14$)

A 18.84 cm^2

B 28.26 cm^2

C 37.68 cm^2

D 113.04 cm^2

Name: _____ Class: _____ Date: _____ Points 10

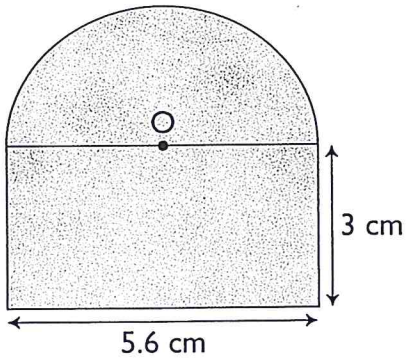
Test B

Unit 7: Circles

Chapter 3: Composite Figures

Circle the correct option, **A**, **B**, **C** or **D**.

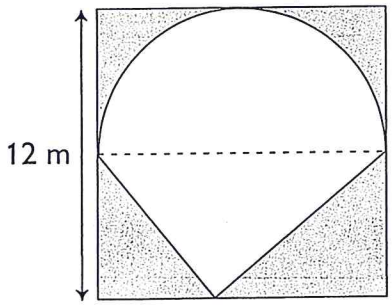
1. The figure shows a semicircle and a rectangle. Find the area of the figure. (Take $\pi = \frac{22}{7}$)



A 29.12 cm^2 **C** 66.08 cm^2

B 41.44 cm^2 **D** 115.36 cm^2

2. The figure shows a semicircle and triangle within a square. Find the area of the shaded part. (Take $\pi = 3.14$)

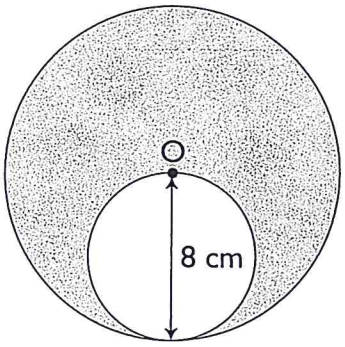


A 149.04 m^2 **C** 92.52 m^2

B 144 m^2 **D** 51.48 m^2

Refer to the figure below to answer Questions 3 & 4.

The figure shows a smaller circle within another bigger circle. O is the center of the bigger circle. (Take $\pi = 3.14$)



3. Find the area of the shaded part.

A 50.24 cm^2 **C** 200.96 cm^2

B 150.72 cm^2 **D** 602.88 cm^2

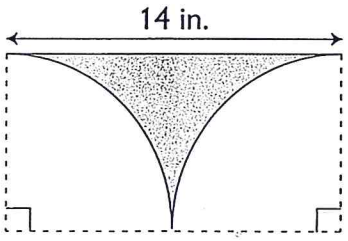
4. Find the perimeter of the shaded part.

A 25.12 cm **C** 75.36 cm

B 50.24 cm **D** 150.72 cm

Refer to the figure below to answer Questions 5 & 6.

The figure shows two quarter circles within a rectangle. (Take $\pi = \frac{22}{7}$)



5. Find the area of the shaded part.

A 21 $in.^2$ **C** 98 $in.^2$

B 77 $in.^2$ **D** 175 $in.^2$

6. The diameter of a circle is 49 m. Find its area.

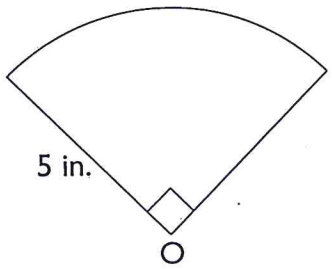
A 154 m^2

B 308 m^2

C 1886.5 m^2

D 7546 m^2

7. The figure shows a part of a circle with center O. Find its area. (Take $\pi = 3.14$)



A 18.625 $in.^2$

B 15.7 $in.^2$

C 19.625 $in.^2$

D 78.5 $in.^2$

8. $\frac{5}{6}$ of a circle is shaded. The radius of the circle is 7 in. Find the area of the shaded part.

A $128\frac{1}{3}$ $in.^2$

B $36\frac{2}{3}$ $in.^2$

C $18\frac{1}{3}$ $in.^2$

D 154 $in.^2$

Refer to the information below to answer Questions 9 & 10.

A circle has a circumference of 13.2 cm.

9. Find the diameter of the circle.

A 2.1 cm

B 4.2 cm

C 8.4 cm

D None of the above

10. Find the area of the circle.

A 3.465 cm^2

B 55.44 cm^2

C 13.86 cm^2

D 221.76 cm^2