

Name _____ Date _____ Hr _____

2nd Semester Geometry

SCORE:

/25

● *Pre Final Exam: How much do you remember?*

SHOW ALL WORK & clearly mark your answers. You can find examples similar to all problems below in your notes from this semester. Awesome effort on this = better prepared on final exam!

CHAPTER 7: Right Triangles & Trigonometry

1. From a point 18 feet from the base of a tower, a wire is stretched to an attachment 40 feet up the tower.

To the *nearest* foot, how long is the wire?



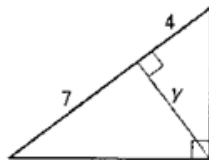
- (a) 58 ft
- (b) 44 ft
- (c) 36 ft
- (d) 29 ft

2. What is 50 in simplest radical form?

- A. $25\sqrt{2}$
- B. $2\sqrt{5}$
- C. $5\sqrt{2}$
- D. $2\sqrt{25}$
- E. 7.07

3. Solve for y .

- (a) 3.2
- (b) 2.55
- (c) 5.29
- (d) 4.45

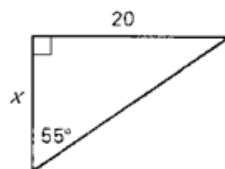


4. The longer leg of a 30° - 60° - 90° triangle is $8\sqrt{3}$. What is the length of the hypotenuse?

- A. 8
- B. $8\sqrt{2}$
- C. $8\sqrt{6}$
- D. 16

5. Find x .

- (a) 16.4
- (b) 14.0
- (c) 24.4
- (d) 11.5



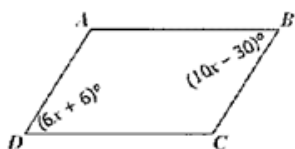
6. The three sides of a triangle are 4 centimeters, 7 centimeters, and 9 centimeters. What is the best description for this triangle?

- A. acute triangle
- B. equiangular triangle
- C. right triangle
- D. obtuse triangle

CHAPTER 8: Quadrilaterals

7. In parallelogram $ABCD$, the measure of $\angle C$ is —

- A 82.5°
- B 97.5°
- C 120.0°
- D 130.0°



8. Quadrilateral $ABCD$ is a parallelogram.

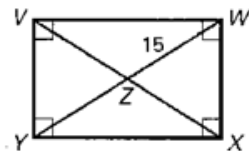
Which of the following is true?

- (a) $\overline{AB} \cong \overline{AD}$
- (b) $\overline{AC} \cong \overline{BD}$
- (c) $\angle A \cong \angle D$
- (d) $\angle B \cong \angle D$



9. Find the length of XV .

- (a) 15
- (b) 7.5
- (c) 30
- (d) 45



10. Which statement is always true?

- a) All quadrilaterals are squares.
- b) All rectangles are squares.
- c) All rectangles are quadrilaterals.
- d) All quadrilaterals are rectangles.

11. What is the measure of each *exterior* angle of a regular hexagon?

- A. 60°
- B. 90°
- C. 120°
- D. 135°

12. Find the values of the variables in the trapezoid below.

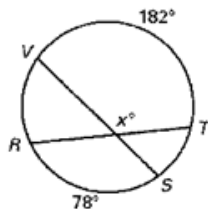
- (a) $a = 144^\circ; b = 113^\circ$
- (b) $a = 113^\circ; b = 36^\circ$
- (c) $a = 144^\circ; b = 67^\circ$
- (d) $a = 105.5^\circ; b = 105.5^\circ$



CHAPTER 10: Circles

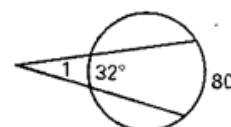
13. Use the diagram to find the value of x .

- (a) 125°
- (b) 91°
- (c) 182°
- (d) 130°



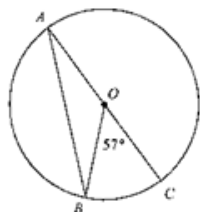
14. Find $m\angle 1$.

- (a) 48°
- (b) 24°
- (c) 56°
- (d) 32°



15. Find the measure of $\angle BAC$ in the circle.

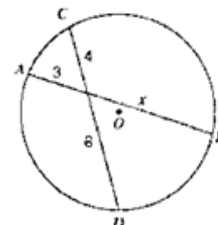
- (a) 57°
- (b) 114°
- (c) 28.5°
- (d) 23°



16. Chords \overline{AB} & \overline{CD} intersect, forming segments with the measures shown.

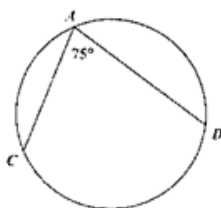
What is the value of x ?

- (a) 5
- (b) 8
- (c) 10
- (d) 24



17. What is the measure of \widehat{CD} ?

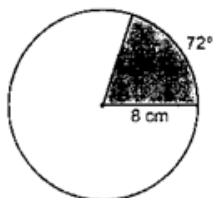
- A. 75°
- B. 105°
- C. 150°
- D. 285°



CHAPTER 11: Area

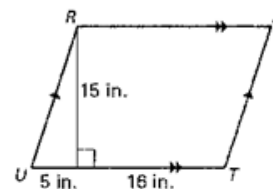
18. A circle has a radius of 8 centimeters. The measure of the arc of the shaded section is 72° . Which is *closest* to the area of the shaded section of the circle?

- (a) 10.1 cm^2
- (b) 40.2 cm^2
- (c) 50.3 cm^2
- (d) 160.8 cm^2



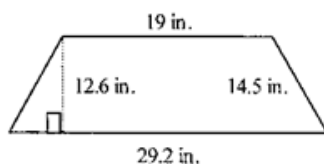
19. Find the area of $\square RSTU$.

- (a) 253 in^2
- (b) 332 in^2
- (c) 277.5 in^2
- (d) 315 in^2



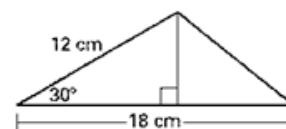
20. Find the area of the figure.

- (a) 303.66 in^2
- (b) 607.32 in^2
- (c) 349.45 in^2
- (d) 367.92 in^2



21. Find the area of the triangle.

- (A) 93.5 cm^2
- (B) 62.4 cm^2
- (C) 54 cm^2
- (D) 140.3 cm^2

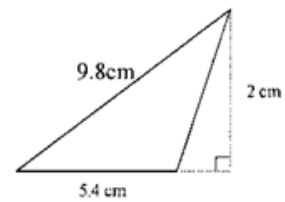


22. The diameter of a circle is 10 meters. What is the area, in square meters, of the circle?

- A. 10π
- B. 20π
- C. 25π
- D. 100π

23. Find the area.

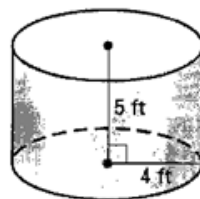
- (a) 9.8 cm^2
- (b) 5.4 cm^2
- (c) 10.8 cm^2
- (d) 26.5 cm^2



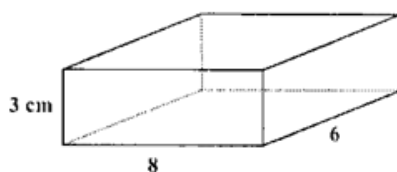
CHAPTER 12: Surface Area & Volume

24. What is the surface area of the right cylinder shown below?

- (A) about 226 ft^2
- (B) about 157 ft^2
- (C) about 257 ft^2
- (D) about 283 ft^2



25.



What is the surface area of the prism?

- A. 90 square cm
- B. 144 square cm
- C. 180 square cm
- D. 288 square cm