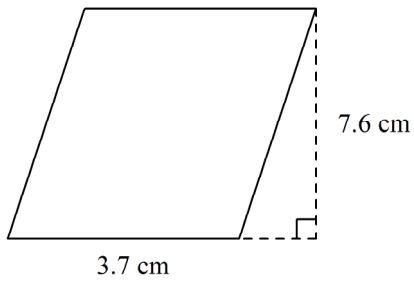


Geometry - Chapter 10 Test SAMPLE

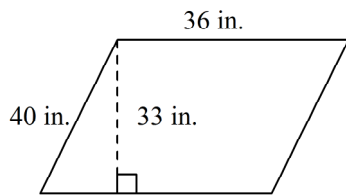
Short Answer

Find the area. The figure is not drawn to scale.

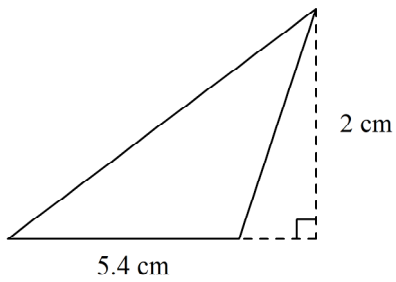
1.



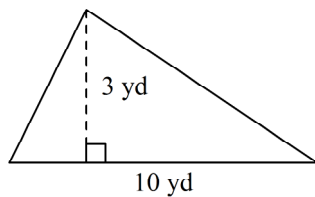
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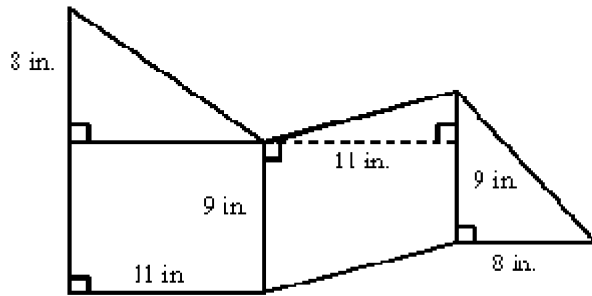
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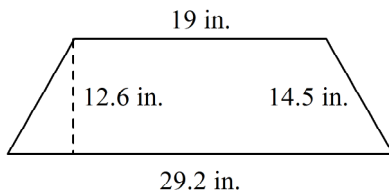
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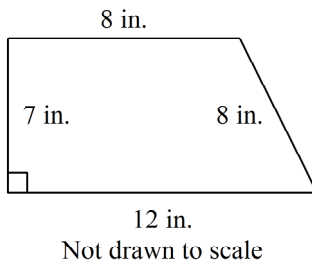
5.



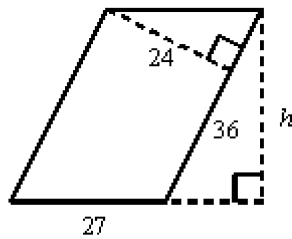
6.



7.



8. Find the value of h in the parallelogram.



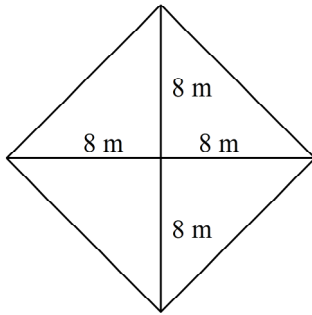
Not drawn to scale

9. A parallelogram has sides 19.5 m and 40.5 m. The height corresponding to the 19.5-m base is 8.1 m. Find the height, to the nearest tenth of a meter, corresponding to the 40.5-m base.

Find the area of the trapezoid. Leave your answer in simplest radical form.

10. A kite has diagonals 9.2 ft and 8 ft. What is the area of the kite?

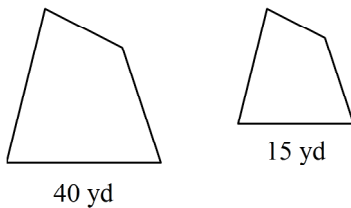
11. Find the area of the rhombus.



12. Find the area of a regular hexagon with an apothem 10.4 yards long and a side 12 yards long. Round your answer to the nearest tenth.
13. Find the area of a regular hexagon with side length of 8 m. Round your answer to the nearest tenth.
14. Find the area of an equilateral triangle with side 12.
15. Find the area of an equilateral triangle with radius $8\sqrt{3}$ m. Leave your answer in simplest radical form.
16. A regular hexagon has a perimeter of 150 m. Find its area. Leave your answer in simplest radical form.

The figures are similar. Give the ratio of the perimeters and the ratio of the areas of the first figure to the second. The figures are not drawn to scale.

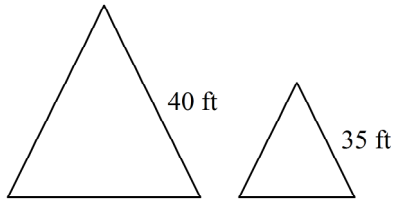
- 17.



18. The widths of two similar rectangles are 16 cm and 14 cm. What is the ratio of the perimeters? Of the areas?

The figures are similar. The area of one figure is given. Find the area of the other figure to the nearest whole number.

19. The area of the larger triangle is 1589 ft^2 .



Not drawn to scale

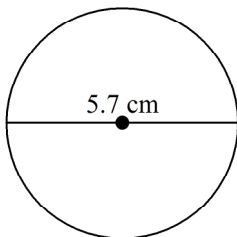
20. Two trapezoids have areas 432 cm^2 and 48 cm^2 . Find their ratio of similarity.
21. Find the similarity ratio and the ratio of perimeters for two regular octagons with areas of 18 in.^2 and 50 in.^2 .

Find the area of the regular polygon. Give the answer to the nearest tenth.

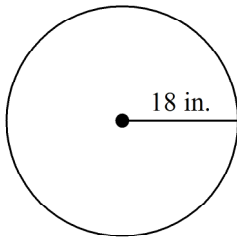
22. hexagon with side 8 yd
23. square with radius 16 ft
24. hexagon with radius 5 in.

Find the circumference. Leave your answer in terms of π .

- 25.

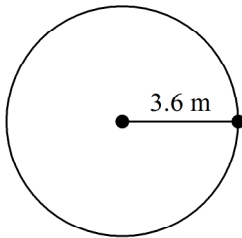


26.

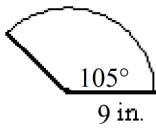


Find the area of the circle. Leave your answer in terms of π .

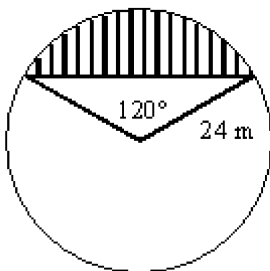
27.



28. Find the area of the figure to the nearest tenth.



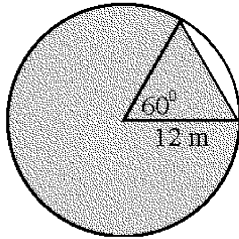
29. Find the exact area of the shaded region.



Name: _____

ID: A

30. Find the area of the shaded region. Leave your answer in terms of π and in simplest radical form.



Geometry - Chapter 10 Test SAMPLE

Answer Section

SHORT ANSWER

1. ANS:
28.12 cm²

PTS: 1 DIF: L2 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Area of a Parallelogram STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 1 KEY: area | parallelogram | base | height
2. ANS:
1188 in.²

PTS: 1 DIF: L2 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Area of a Parallelogram STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 1 KEY: area | parallelogram | base | height
3. ANS:
5.4 cm²

PTS: 1 DIF: L2 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.2 Area of a Triangle STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 3 KEY: triangle | area
4. ANS:
15 yd²

PTS: 1 DIF: L2 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.2 Area of a Triangle STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 3 KEY: triangle | area
5. ANS:
278 in.²

PTS: 1 DIF: L4 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.2 Area of a Triangle STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 3 KEY: area | triangle | rectangle | parallelogram
6. ANS:
303.66 in.²

PTS: 1 DIF: L2 REF: 10-2 Areas of Trapezoids, Rhombuses, and Kites
OBJ: 10-2.1 Area of a Trapezoid STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-2 Example 1 KEY: trapezoid | area

7. ANS:
70 in.²
- PTS: 1 DIF: L2 REF: 10-2 Areas of Trapezoids, Rhombuses, and Kites
OBJ: 10-2.1 Area of a Trapezoid STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-2 Example 1 KEY: trapezoid | area
8. ANS:
32
- PTS: 1 DIF: L2 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Area of a Parallelogram STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 2 KEY: parallelogram | area | base | height
9. ANS:
3.9 m
- PTS: 1 DIF: L3 REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Area of a Parallelogram STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-1 Example 2 KEY: parallelogram | area | base | height
10. ANS:
36.8 ft²
- PTS: 1 DIF: L2 REF: 10-2 Areas of Trapezoids, Rhombuses, and Kites
OBJ: 10-2.2 Finding Areas of Rhombuses and Kites STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-2 Example 3 KEY: area | kite
11. ANS:
128 m²
- PTS: 1 DIF: L2 REF: 10-2 Areas of Trapezoids, Rhombuses, and Kites
OBJ: 10-2.2 Finding Areas of Rhombuses and Kites STA: CA GEOM 8.0| CA GEOM 10.0
TOP: 10-2 Example 4 KEY: area | rhombus
12. ANS:
374.4 yd²
- PTS: 1 DIF: L2 REF: 10-3 Areas of Regular Polygons
OBJ: 10-3.1 Areas of Regular Polygons STA: CA GEOM 8.0| CA GEOM 10.0| CA GEOM 20.0
TOP: 10-3 Example 2 KEY: regular polygon | area | apothem | radius
13. ANS:
166.3 m²
- PTS: 1 DIF: L2 REF: 10-3 Areas of Regular Polygons
OBJ: 10-3.1 Areas of Regular Polygons STA: CA GEOM 8.0| CA GEOM 10.0| CA GEOM 20.0
TOP: 10-3 Example 3 KEY: regular polygon | hexagon | area | apothem | radius
14. ANS:
 $36\sqrt{3}$
- PTS: 1 DIF: L2 REF: 10-3 Areas of Regular Polygons
OBJ: 10-3.1 Areas of Regular Polygons STA: CA GEOM 8.0| CA GEOM 10.0| CA GEOM 20.0
TOP: 10-3 Example 3 KEY: regular polygon | hexagon | area | apothem | radius

15. ANS:
 $144\sqrt{3} \text{ m}^2$
- PTS: 1 DIF: L2 REF: 10-3 Areas of Regular Polygons
 OBJ: 10-3.1 Areas of Regular Polygons STA: CA GEOM 8.0| CA GEOM 10.0| CA GEOM 20.0
 TOP: 10-3 Example 4 KEY: regular polygon | radius
16. ANS:
 $\frac{1875}{2}\sqrt{3} \text{ m}^2$
- PTS: 1 DIF: L3 REF: 10-3 Areas of Regular Polygons
 OBJ: 10-3.1 Areas of Regular Polygons STA: CA GEOM 8.0| CA GEOM 10.0| CA GEOM 20.0
 TOP: 10-3 Example 4 KEY: regular polygon | radius | area | perimeter
17. ANS:
 $\frac{8}{3}$ and $\frac{64}{9}$
- PTS: 1 DIF: L2 REF: 10-4 Perimeters and Areas of Similar Figures
 OBJ: 10-4.1 Finding Perimeters and Areas of Similar Figures STA: CA GEOM 11.0
 TOP: 10-4 Example 1 KEY: perimeter | area | similar figures
18. ANS:
 8 : 7 and 64 : 49
- PTS: 1 DIF: L2 REF: 10-4 Perimeters and Areas of Similar Figures
 OBJ: 10-4.1 Finding Perimeters and Areas of Similar Figures STA: CA GEOM 11.0
 TOP: 10-4 Example 1 KEY: perimeter | area | similar figures
19. ANS:
 1217 ft^2
- PTS: 1 DIF: L2 REF: 10-4 Perimeters and Areas of Similar Figures
 OBJ: 10-4.1 Finding Perimeters and Areas of Similar Figures STA: CA GEOM 11.0
 TOP: 10-4 Example 2 KEY: similar figures | area
20. ANS:
 3 : 1
- PTS: 1 DIF: L2 REF: 10-4 Perimeters and Areas of Similar Figures
 OBJ: 10-4.1 Finding Perimeters and Areas of Similar Figures STA: CA GEOM 11.0
 TOP: 10-4 Example 4 KEY: similar figures | area
21. ANS:
 3 : 5; 3 : 5
- PTS: 1 DIF: L2 REF: 10-4 Perimeters and Areas of Similar Figures
 OBJ: 10-4.1 Finding Perimeters and Areas of Similar Figures STA: CA GEOM 11.0
 TOP: 10-4 Example 4 KEY: similar figures | similarity ratio

22. ANS:

$$166.3 \text{ yd}^2$$

PTS: 1 DIF: L2 REF: 10-5 Trigonometry and Area
 OBJ: 10-5.1 Finding the Area of a Regular Polygon STA: CA GEOM 8.0| CA GEOM 19.0
 TOP: 10-5 Example 1
 KEY: area of a regular polygon | area | regular polygon | tangent | measure of central angle of a regular polygon

23. ANS:

$$512 \text{ ft}^2$$

PTS: 1 DIF: L2 REF: 10-5 Trigonometry and Area
 OBJ: 10-5.1 Finding the Area of a Regular Polygon STA: CA GEOM 8.0| CA GEOM 19.0
 KEY: area of a regular polygon | area | regular polygon | cosine | sine | measure of central angle of a regular polygon

24. ANS:

$$65.0 \text{ in.}^2$$

PTS: 1 DIF: L2 REF: 10-5 Trigonometry and Area
 OBJ: 10-5.1 Finding the Area of a Regular Polygon STA: CA GEOM 8.0| CA GEOM 19.0
 TOP: 10-5 Example 2
 KEY: area of a regular polygon | area | regular polygon | cosine | sine | measure of central angle of a regular polygon

25. ANS:

$$5.7\pi \text{ cm}$$

PTS: 1 DIF: L2 REF: 10-6 Circles and Arcs
 OBJ: 10-6.2 Circumference and Arc Length STA: CA GEOM 7.0| CA GEOM 8.0
 TOP: 10-6 Example 4 KEY: circumference | diameter

26. ANS:

$$36\pi \text{ in.}$$

PTS: 1 DIF: L2 REF: 10-6 Circles and Arcs
 OBJ: 10-6.2 Circumference and Arc Length STA: CA GEOM 7.0| CA GEOM 8.0
 TOP: 10-6 Example 4 KEY: circumference | radius

27. ANS:

$$12.96\pi \text{ m}^2$$

PTS: 1 DIF: L2 REF: 10-7 Areas of Circles and Sectors
 OBJ: 10-7.1 Finding Areas of Circles and Parts of Circles STA: CA GEOM 8.0
 TOP: 10-7 Example 1 KEY: area of a circle | radius

28. ANS:

$$74.2 \text{ in.}^2$$

PTS: 1 DIF: L2 REF: 10-7 Areas of Circles and Sectors
 OBJ: 10-7.1 Finding Areas of Circles and Parts of Circles STA: CA GEOM 8.0
 TOP: 10-7 Example 2 KEY: sector | circle | area

29. ANS:

$$\left(192\pi - 144\sqrt{3}\right)\text{m}^2$$

PTS: 1 DIF: L2 REF: 10-7 Areas of Circles and Sectors
OBJ: 10-7.1 Finding Areas of Circles and Parts of Circles STA: CA GEOM 8.0
TOP: 10-7 Example 3 KEY: sector | circle | area | central angle

30. ANS:

$$\left(120\pi + 36\sqrt{3}\right)\text{m}^2$$

PTS: 1 DIF: L3 REF: 10-7 Areas of Circles and Sectors
OBJ: 10-7.1 Finding Areas of Circles and Parts of Circles STA: CA GEOM 8.0
TOP: 10-7 Example 3 KEY: sector | circle | area | central angle