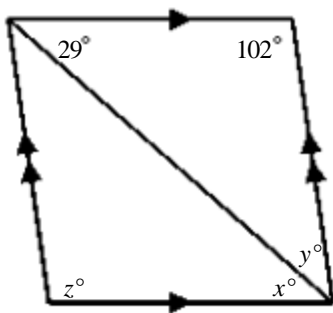


Geometry Final Exam Review

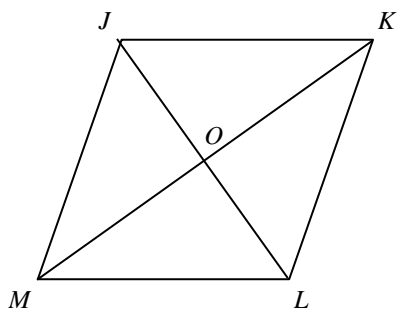
Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ____ 1. The sum of the angle measures of a polygon with s sides is 2520. Find s .
- a. 14 b. 16 c. 18 d. 15
- ____ 2. A road sign is in the shape of a regular heptagon. What is the measure of each angle on the sign? Round to the nearest tenth.
- a. 900 b. 231.4 c. 128.6 d. 64.3
- ____ 5. Find the values of the variables in the parallelogram. The diagram is not to scale.



- a. $x = 49, y = 29, z = 102$ c. $x = 49, y = 49, z = 131$
b. $x = 29, y = 49, z = 131$ d. $x = 29, y = 49, z = 102$
- ____ 6. In the parallelogram, $m\angle KLO = 69$ and $m\angle MLO = 47$. Find $m\angle KJM$. The diagram is not to scale.

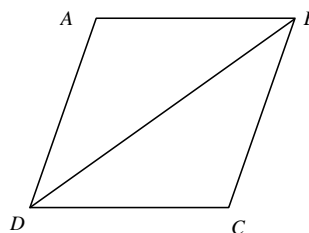


- a. 69 b. 106 c. 116 d. 64

7. What is the missing reason in the proof?

Given: $\square ABCD$ with diagonal \overline{BD}

Prove: $\triangle ABD \cong \triangle CDB$

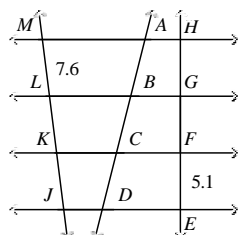


Statements	Reasons
1. $\overline{AD} \parallel \overline{BC}$	1. Definition of parallelogram
2. $\angle ADB \cong \angle CBD$	2. Alternate Interior Angles Theorem
3. $\overline{AB} \parallel \overline{CD}$	3. ?
4. $\angle ABD \cong \angle CDB$	4. Alternate Interior Angles Theorem
5. $\overline{DB} \cong \overline{DB}$	5. Reflexive Property of Congruence
6. $\triangle ABD \cong \triangle CDB$	6. ASA

- a. Reflexive Property of Congruence
b. Definition of parallelogram

- c. Alternate Interior Angles Theorem
d. ASA

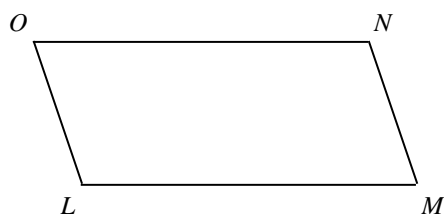
8. In the figure, the horizontal lines are parallel and $AB = BC = CD$. Find KL and FG . The diagram is not to scale.



- a. $KL = 7.6, FG = 7.6$
b. $KL = 5.1, FG = 7.6$

- c. $KL = 5.1, FG = 5.1$
d. $KL = 7.6, FG = 5.1$

9. If $ON = 5x - 4$, $LM = 4x + 7$, $NM = x - 7$, and $OL = 2y - 6$, find the values of x and y for which $LMNO$ must be a parallelogram. The diagram is not to scale.



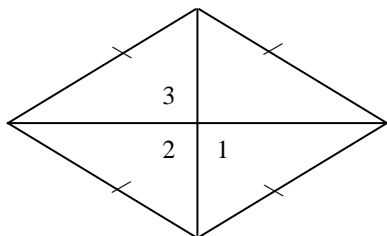
- a. $x = 4, y = 5$

- c. $x = 11, y = \frac{1}{5}$

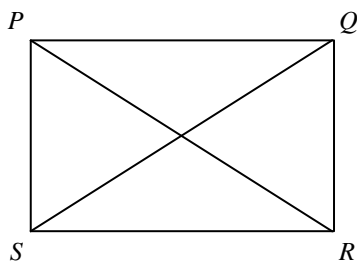
- b. $x = 4, y = \frac{1}{5}$

- d. $x = 11, y = 5$

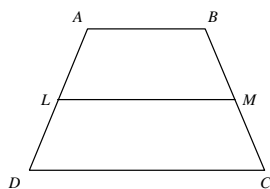
10. In the rhombus, $m\angle 1 = 18x$, $m\angle 2 = x + y$, and $m\angle 3 = 30z$. Find the value of each variable. The diagram is not to scale.



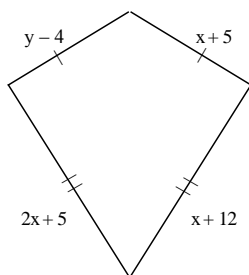
- a. $x = 10, y = 85, z = 6$
 b. $x = 5, y = 175, z = 6$
 c. $x = 5, y = 85, z = 3$
 d. $x = 10, y = 175, z = 3$
11. In rectangle $PQRS$, $PR = 18x - 24$ and $QS = x + 146$. Find the value of x and the length of each diagonal.



- a. $x = 10, PR = 156, QS = 156$
 b. $x = 10, PR = 78, QS = 78$
 c. $x = 5, PR = 151, QS = 151$
 d. $x = 11, PR = 174, QS = 174$
12. \overline{LM} is the midsegment of $\square ABCD$. $AB = x + 8$, $LM = 4x + 3$, and $DC = 201$. What is the value of x ?



- a. 33
 b. 29
 c. 238
 d. 37
13. Find the values of the variables and the lengths of the sides of this kite.



- a. $x = 7, y = 16; 3, 21$
 b. $x = 16, y = 7; 12, 12$
 c. $x = 7, y = 16; 12, 19$
 d. $x = 16, y = 7; 3, 21$

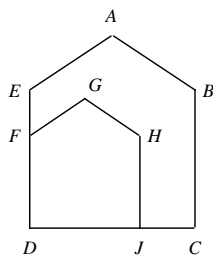
14. A model is made of a car. The car is 9 feet long and the model is 6 inches long. What is the ratio of the length of the car to the length of the model?
- a. 18 : 1 b. 1 : 18 c. 9 : 6 d. 6 : 9
15. The measure of two complementary angles are in the ratio 1 : 4. What are the degree measures of the two angles?
- a. 45° and 135° c. 36° and 144°
b. 23° and 68° d. 18° and 72°

What is the solution of each proportion?

16. $\frac{n-6}{3n} = \frac{n-5}{3n+1}$
- a. -3 b. $\frac{2}{5}$ c. $\frac{9}{17}$ d. 3
17. $ABCDE \sim GHJDF$. Complete the statements.

a. $\angle H \cong \square$

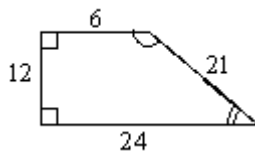
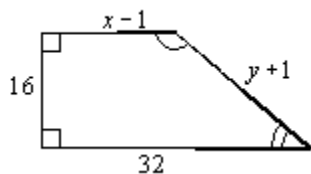
b. $\frac{GH}{DJ} = \frac{AB}{\square}$



- a. $\angle B; DC$ b. $E; AE$ c. $E; DC$ d. $\angle B; AE$

The polygons are similar, but not necessarily drawn to scale. Find the value of x .

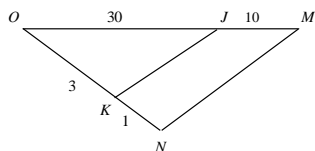
18.



- a. $x = 8$ c. $x = 9$
b. $x = \frac{11}{2}$ d. $x = 10$

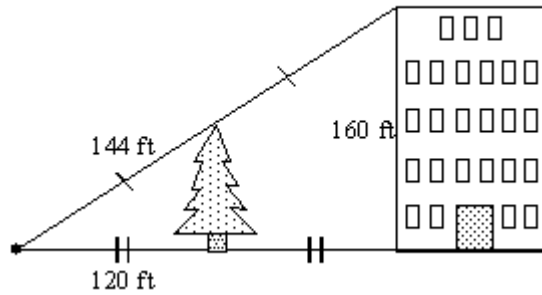
State whether the triangles are similar. If so, write a similarity statement and the postulate or theorem you used.

19.



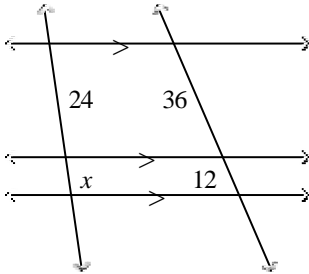
- a. $\triangle OMN \sim \triangle JKN$; SSS~ c. $\triangle OMN \sim \triangle JKN$; SAS~
b. $\triangle OMN \sim \triangle JKN$; SAS~ d. The triangles are not similar.

___ 20. Use the information in the diagram to determine the height of the tree to the nearest foot.



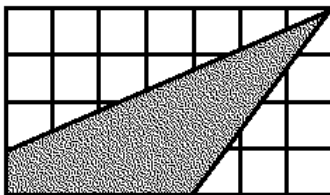
- a. 80 ft b. 264 ft c. 60 ft d. 72 ft

___ 23. What is the value of x ?



- a. 8 b. 12 c. 6 d. 2

___ 24. The figure is drawn on centimeter grid paper. Find the perimeter of the shaded figure to the nearest tenth.



- a. 17.6 cm b. 10.8 cm c. 15.6 cm d. 18.0 cm

___ 25. A triangle has side lengths of 28 in, 4 in, and 31 in. Classify it as acute, obtuse, or right.

- a. obtuse b. right c. acute

___ 26. Quilt squares are cut on the diagonal to form triangular quilt pieces. The hypotenuse of the resulting triangles is 10 inches long. What is the side length of each piece?

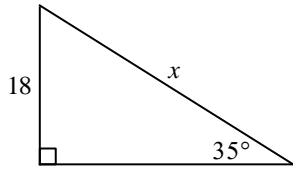
- a. 5 c. $5\sqrt{3}$
b. $5\sqrt{2}$ d. $10\sqrt{2}$

___ 27. The length of the hypotenuse of a 30° – 60° – 90° triangle is 4. Find the perimeter.

- a. $4 + 12\sqrt{3}$ c. $2 + 6\sqrt{3}$
b. $6 + 2\sqrt{3}$ d. $12 + 4\sqrt{3}$

Find the value of x . Round to the nearest tenth.

_____ 28.

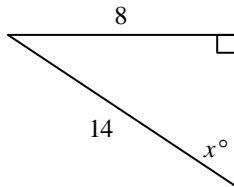


Not drawn to scale

- a. 10.3 b. 31.4 c. 10.7 d. 31.8

Find the value of x . Round to the nearest degree.

_____ 29.

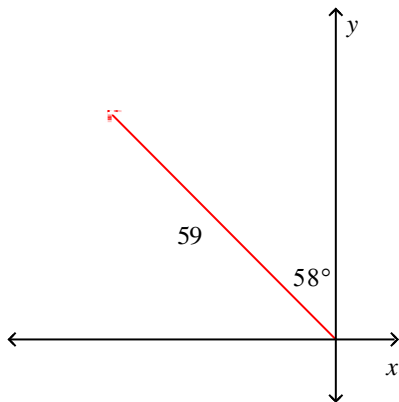


Not drawn to scale

- a. 55 b. 35 c. 30 d. 34

Describe the vector as an ordered pair. Round the coordinates to the nearest tenth. (Not drawn to scale.)

 30.



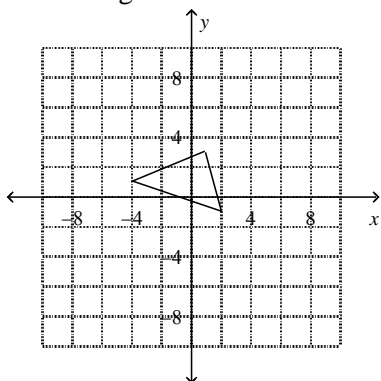
- a. $\langle -69.6, 111.3 \rangle$
b. $\langle -50, 31.3 \rangle$

Write the resultant of the two vectors as an ordered pair.

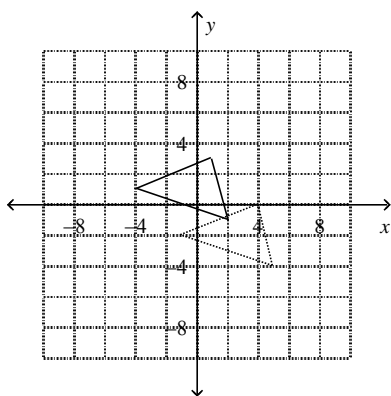
 31.

- a. $\langle 0, 0 \rangle$ b. $\langle -12, -10 \rangle$ c. $\langle 12, 10 \rangle$ d. $\langle 1, 1 \rangle$

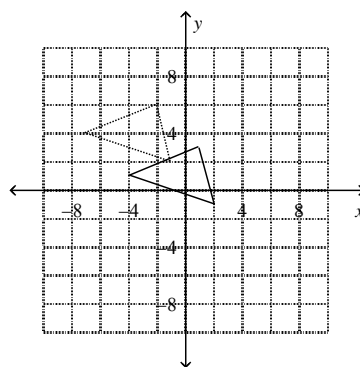
___ 32. What image is the translation of the shown triangle given by the translation rule $(x, y) \rightarrow (x - 3, y + 3)$?



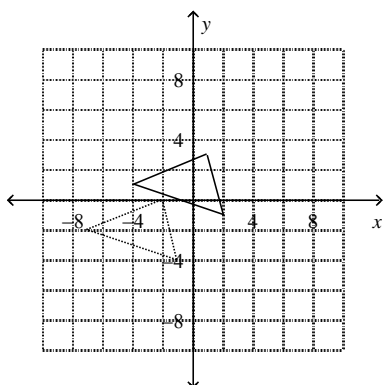
a.



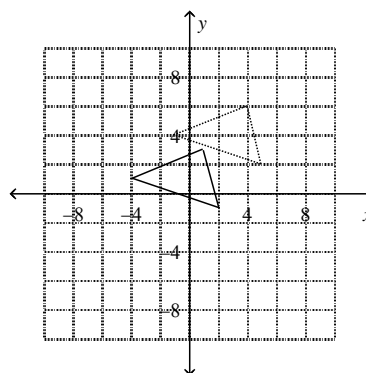
c.



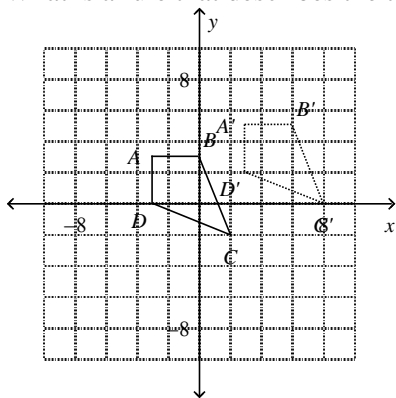
b.



d.



33. What is a rule that describes the translation $ABCD \rightarrow A'B'C'D'$?



a. $(x, y) \rightarrow (x + 6, y + 2)$

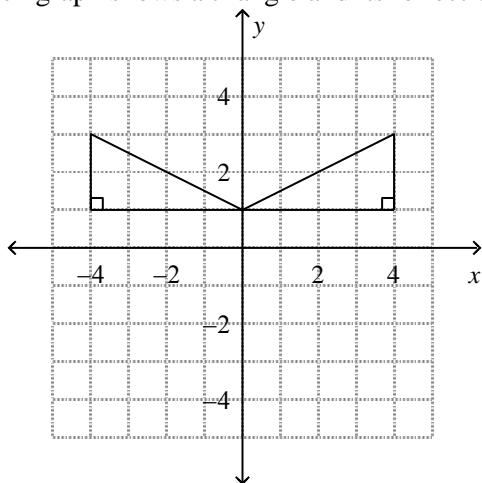
b. $(x, y) \rightarrow (x - 6, y + 2)$

c. $(x, y) \rightarrow (x + 2, y + 6)$

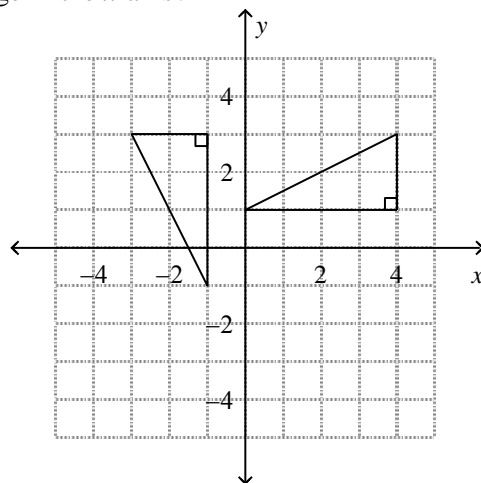
d. $(x, y) \rightarrow (x - 6, y - 2)$

34. Which graph shows a triangle and its reflection image in the x -axis?

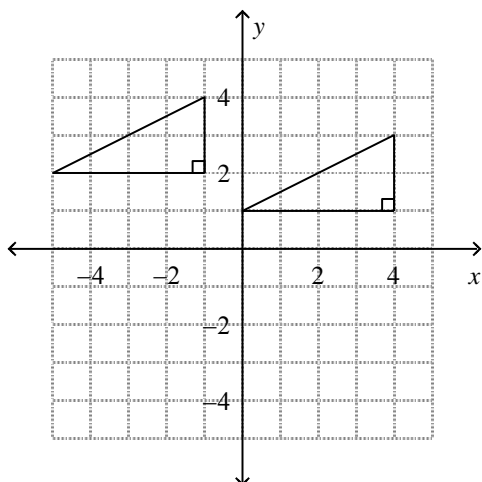
a.



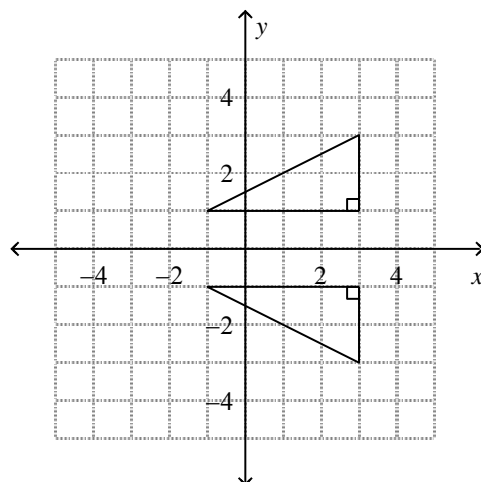
c.



b.



d.



36. Which letter has at least one line of symmetry?

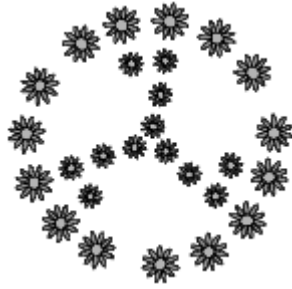
a. F

b. W

c. Z

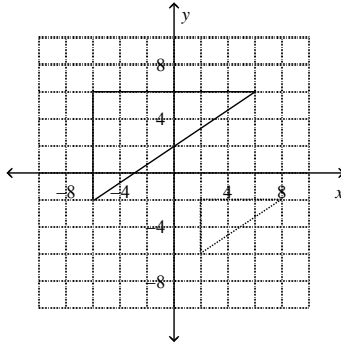
d. S

- ___ 37. If the figure has rotational symmetry, find the angle of rotation about the center that results in an image that matches the original figure.



- a. 90° b. 120° c. 210° d. no rotational symmetry

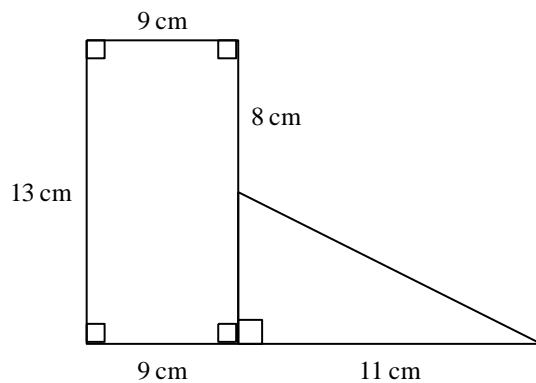
- ___ 38. The dashed-lined triangle is a dilation image of the solid-lined triangle. Is the dilation an enlargement or a reduction? What is the scale factor of the dilation?



- a. reduction; 2 b. reduction; $\frac{1}{4}$ c. enlargement; 2 d. reduction; $\frac{1}{2}$

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

- ___ 39.

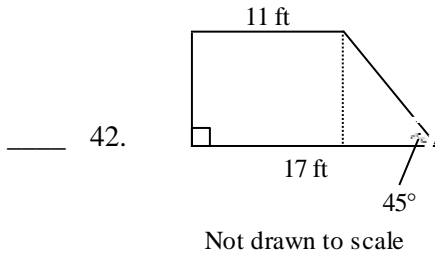


- a. 144.5 cm^2 b. 127 cm^2 c. 172 cm^2 d. 50 cm^2

- ___ 41. Find the area of an equilateral triangle with a side of 12.

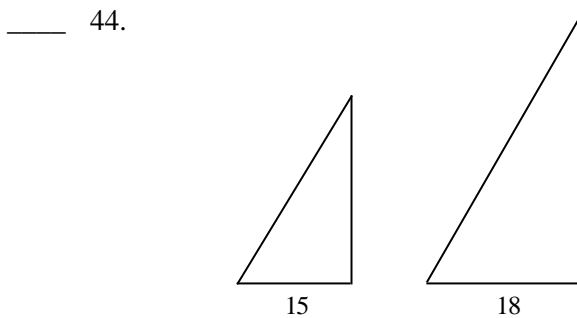
- a. $36\sqrt{3}$ b. 72 c. 36 d. $3\sqrt{3}$

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



- a. $84\sqrt{2} \text{ ft}^2$ b. 84 ft^2 c. 168 ft^2 d. 14 ft^2

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.



- a. 5 : 6 and 25 : 36 c. 5 : 6 and 36 : 49
b. 6 : 7 and 36 : 49 d. 6 : 7 and 25 : 36

___ 45. Use Euler's Formula to find the missing number.

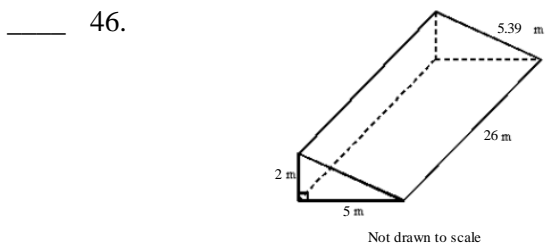
Vertices: 11

Edges: 34

Faces: ?

- a. 25 b. 28 c. 26 d. 24

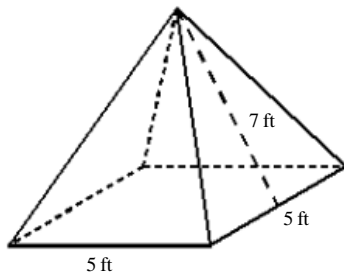
Use formulas to find the lateral area and surface area of the given prism. Round your answer to the nearest whole number.



- a. 322 m^2 ; 327 m^2 c. 296 m^2 ; 332 m^2
b. 296 m^2 ; 342 m^2 d. 322 m^2 ; 332 m^2

Find the surface area of the pyramid shown to the nearest whole number.

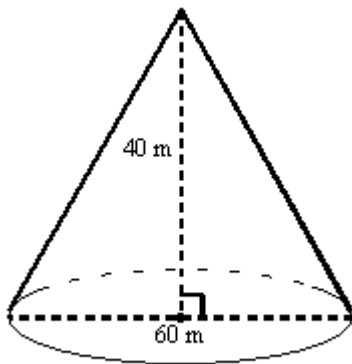
____ 47.



Not drawn to scale

- a. 165 ft^2 b. 95 ft^2 c. 70 ft^2 d. 28 ft^2

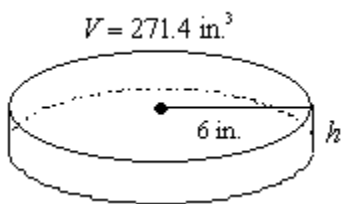
____ 48. Find the lateral area of the cone to the nearest whole number.



Not drawn to scale

- a. 7540 m^2 b. 3770 m^2 c. 4712 m^2 d. 9425 m^2

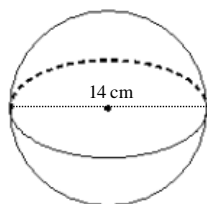
____ 49. Find the height of the cylinder.



- a. 2.4 in. b. 7.2 in. c. 14.4 d. 4.8 in.

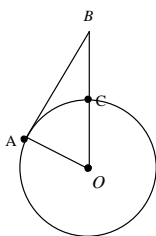
Find the volume of the sphere shown. Give each answer rounded to the nearest cubic unit.

____ 50.



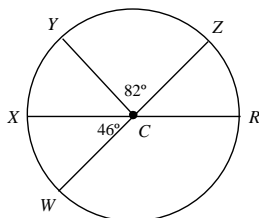
- a. $11,494 \text{ cm}^3$ b. 359 cm^3 c. $1,437 \text{ cm}^3$ d. 205 cm^3

____ 51. \overline{AB} is tangent to $\odot O$. If $AO = 24$ and $BC = 50$, what is AB ?
The diagram is not to scale.



- a. 74 b. 94 c. 70 d. 100

____ 52. \overline{WZ} and \overline{XR} are diameters. Find the measure of \widehat{ZWY} . (The figure is not drawn to scale.)



- a. 262 b. 226 c. 308 d. 52

Geometry Honors Final Exam Review

Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: L3
REF: 6-1 The Polygon Angle-Sum Theorems
OBJ: 6-1.1 Find the sum of the measures of the interior angles of a polygon
STA: MA.912.G.2.1| MA.912.G.2.2 TOP: 6-1 Problem 1 Finding a Polygon Angle Sum
KEY: sum of angles of a polygon DOK: DOK 2
2. ANS: C PTS: 1 DIF: L3
REF: 6-1 The Polygon Angle-Sum Theorems
OBJ: 6-1.1 Find the sum of the measures of the interior angles of a polygon
STA: MA.912.G.2.1| MA.912.G.2.2 TOP: 6-1 Problem 2 Using the Polygon Angle-Sum
KEY: sum of angles of a polygon | equilateral | Corollary to the Polygon Angle-Sum Theorem | regular polygon
DOK: DOK 2
3. ANS: D PTS: 1 DIF: L4
REF: 6-1 The Polygon Angle-Sum Theorems
OBJ: 6-1.1 Find the sum of the measures of the interior angles of a polygon
STA: MA.912.G.2.1| MA.912.G.2.2 TOP: 6-1 Problem 3 Using the Polygon Angle-Sum Theorem
KEY: Polygon Angle-Sum Theorem DOK: DOK 2
4. ANS: C PTS: 1 DIF: L4
REF: 6-1 The Polygon Angle-Sum Theorems
OBJ: 6-1.2 Find the sum of the measures of the exterior angles of a polygon
STA: MA.912.G.2.1| MA.912.G.2.2 TOP: 6-1 Problem 4 Finding an Exterior Angle Measure
KEY: sum of angles of a polygon DOK: DOK 2
5. ANS: D PTS: 1 DIF: L4 REF: 6-2 Properties of Parallelograms
OBJ: 6-2.1 Use relationships among sides and angles of parallelograms
STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4| MA.912.G.4.5
TOP: 6-2 Problem 1 Using Consecutive Angles
KEY: parallelogram | opposite angles | consecutive angles | transversal
DOK: DOK 2
6. ANS: C PTS: 1 DIF: L4 REF: 6-2 Properties of Parallelograms
OBJ: 6-2.1 Use relationships among sides and angles of parallelograms
STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4| MA.912.G.4.5
TOP: 6-2 Problem 1 Using Consecutive Angles KEY: parallelogram | angles
DOK: DOK 2
7. ANS: B PTS: 1 DIF: L3 REF: 6-2 Properties of Parallelograms
OBJ: 6-2.2 Use relationships among diagonals of parallelograms
STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4| MA.912.G.4.5
TOP: 6-2 Problem 2 Using Properties of Parallelograms in a Proof
KEY: proof | two-column proof | parallelogram | diagonal DOK: DOK 2
8. ANS: D PTS: 1 DIF: L2 REF: 6-2 Properties of Parallelograms
OBJ: 6-2.1 Use relationships among sides and angles of parallelograms
STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4| MA.912.G.4.5
TOP: 6-2 Problem 4 Using Parallel Lines and Transversals KEY: parallel lines | transversal
DOK: DOK 1
9. ANS: D PTS: 1 DIF: L2
REF: 6-3 Proving That a Quadrilateral Is a Parallelogram

- OBJ: 6-3.1 Determine whether a quadrilateral is a parallelogram
 STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4
 TOP: 6-3 Problem 1 Finding Values for Parallelograms
 KEY: algebra | parallelogram | opposite sides DOK: DOK 2
10. ANS: C PTS: 1 DIF: L4
 REF: 6-4 Properties of Rhombuses, Rectangles, and Squares
 OBJ: 6-4.2 Use properties of diagonals of rhombuses and rectangles
 STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4
 TOP: 6-4 Problem 2 Finding Angle Measures KEY: algebra | diagonal | rhombus
 DOK: DOK 2
11. ANS: A PTS: 1 DIF: L3
 REF: 6-4 Properties of Rhombuses, Rectangles, and Squares
 OBJ: 6-4.2 Use properties of diagonals of rhombuses and rectangles
 STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4
 TOP: 6-4 Problem 3 Finding Diagonal Length KEY: rectangle | algebra | diagonal
 DOK: DOK 2
12. ANS: B PTS: 1 DIF: L3 REF: 6-6 Trapezoids and Kites
 OBJ: 6-6.1 Verify and use properties of trapezoids and kites
 STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4
 TOP: 6-6 Problem 3 Using the Midsegment of a Trapezoid KEY: trapezoid | base angles
 DOK: DOK 2
13. ANS: C PTS: 1 DIF: L4 REF: 6-6 Trapezoids and Kites
 OBJ: 6-6.1 Verify and use properties of trapezoids and kites
 STA: MA.912.G.3.1| MA.912.G.3.2| MA.912.G.3.4
 TOP: 6-6 Problem 4 Finding Angle Measures in Kites KEY: algebra | kite
 DOK: DOK 2
14. ANS: A PTS: 1 DIF: L3 REF: 7-1 Ratios and Proportions
 OBJ: 7-1.1 Write ratios and solve proportions TOP: 7-1 Problem 1 Writing a Ratio
 KEY: ratio | word problem DOK: DOK 2
15. ANS: D PTS: 1 DIF: L3 REF: 7-1 Ratios and Proportions
 OBJ: 7-1.1 Write ratios and solve proportions
 TOP: 7-1 Problem 2 Dividing a Quantity into a Given Ratio KEY: ratio
 DOK: DOK 2
16. ANS: A PTS: 1 DIF: L4 REF: 7-1 Ratios and Proportions
 OBJ: 7-1.1 Write ratios and solve proportions TOP: 7-1 Problem 4 Solving a Proportion
 KEY: proportion | Cross-Product Property DOK: DOK 2
17. ANS: A PTS: 1 DIF: L3 REF: 7-2 Similar Polygons
 OBJ: 7-2.1 Identify and apply similar polygons STA: MA.912.G.2.3
 TOP: 7-2 Problem 1 Understanding Similarity KEY: similar polygons
 DOK: DOK 2
18. ANS: C PTS: 1 DIF: L3 REF: 7-2 Similar Polygons
 OBJ: 7-2.1 Identify and apply similar polygons STA: MA.912.G.2.3
 TOP: 7-2 Problem 3 Using Similar Polygons KEY: corresponding sides | proportion
 DOK: DOK 2
19. ANS: B PTS: 1 DIF: L3 REF: 7-3 Proving Triangles Similar
 OBJ: 7-3.1 Use the AA Postulate and the SAS and SSS Theorems
 STA: MA.912.G.2.3| MA.912.G.4.4| MA.912.G.4.6| MA.912.G.4.8| MA.912.G.5.4| MA.912.G.8.5
 TOP: 7-3 Problem 2 Verifying Triangle Similarity KEY: Side-Side-Side Similarity Theorem
 DOK: DOK 2
20. ANS: A PTS: 1 DIF: L3 REF: 7-3 Proving Triangles Similar

- OBJ: 7-3.2 Use similarity to find indirect measurements
 STA: MA.912.G.2.3| MA.912.G.4.4| MA.912.G.4.6| MA.912.G.4.8| MA.912.G.5.4| MA.912.G.8.5
 TOP: 7-3 Problem 4 Finding Lengths in Similar Triangles
 KEY: Angle-Angle Similarity Postulate | word problem DOK: DOK 2
21. ANS: C PTS: 1 DIF: L2 REF: 7-4 Similarity in Right Triangles
 OBJ: 7-4.1 Find and use relationships in similar triangles
 STA: MA.912.G.2.3| MA.912.G.4.6| MA.912.G.5.2| MA.912.G.5.4| MA.912.G.8.3
 TOP: 7-4 Problem 2 Finding the Geometric Mean KEY: geometric mean | proportion
 DOK: DOK 2
22. ANS: A PTS: 1 DIF: L4 REF: 7-4 Similarity in Right Triangles
 OBJ: 7-4.1 Find and use relationships in similar triangles
 STA: MA.912.G.2.3| MA.912.G.4.6| MA.912.G.5.2| MA.912.G.5.4| MA.912.G.8.3
 TOP: 7-4 Problem 4 Finding a Distance
 KEY: corollaries of the geometric mean | multi-part question | word problem
 DOK: DOK 2
23. ANS: A PTS: 1 DIF: L2 REF: 7-5 Proportions in Triangles
 OBJ: 7-5.1 Use the Side-Splitter Theorem and the Triangles Angle-Bisector Theorem
 STA: MA.912.G.2.3| MA.912.G.4.5| MA.912.G.4.6 TOP: 7-5 Problem 2 Finding a Length
 KEY: corollary of Side-Splitter Theorem DOK: DOK 2
24. ANS: A PTS: 1 DIF: L4
 REF: 8-1 The Pythagorean Theorem and Its Converse
 OBJ: 8-1.1 Use the Pythagorean Theorem and its converse
 STA: MA.912.G.5.1| MA.912.G.5.4| MA.912.G.8.3 TOP: 8-1 Problem 3 Finding Distance
 KEY: Pythagorean Theorem | perimeter DOK: DOK 3
25. ANS: A PTS: 1 DIF: L3
 REF: 8-1 The Pythagorean Theorem and Its Converse
 OBJ: 8-1.1 Use the Pythagorean Theorem and its converse
 STA: MA.912.G.5.1| MA.912.G.5.4| MA.912.G.8.3
 TOP: 8-1 Problem 5 Classifying a Triangle
 KEY: right triangle | obtuse triangle | acute triangle DOK: DOK 1
26. ANS: B PTS: 1 DIF: L3 REF: 8-2 Special Right Triangles
 OBJ: 8-2.1 Use the properties of 45° - 45° - 90° and 30° - 60° - 90° triangles
 STA: MA.912.G.5.1| MA.912.G.5.3| MA.912.G.5.4 TOP: 8-2 Problem 3 Finding Distance
 KEY: special right triangles | word problem DOK: DOK 2
27. ANS: B PTS: 1 DIF: L4 REF: 8-2 Special Right Triangles
 OBJ: 8-2.1 Use the properties of 45° - 45° - 90° and 30° - 60° - 90° triangles
 STA: MA.912.G.5.1| MA.912.G.5.3| MA.912.G.5.4
 TOP: 8-2 Problem 4 Using the Length of One Side KEY: special right triangles | perimeter
 DOK: DOK 3
28. ANS: B PTS: 1 DIF: L3 REF: 8-3 Trigonometry
 OBJ: 8-3.1 Use the sine, cosine, and tangent ratios to determine side lengths and angle measures in right triangles
 STA: MA.912.G.5.4| MA.912.T.2.1
 TOP: 8-3 Problem 2 Using a Trigonometric Ratio to Find Distance
 KEY: sine | side length using sine and cosine | sine ratio DOK: DOK 2
29. ANS: B PTS: 1 DIF: L3 REF: 8-3 Trigonometry
 OBJ: 8-3.1 Use the sine, cosine, and tangent ratios to determine side lengths and angle measures in right triangles
 STA: MA.912.G.5.4| MA.912.T.2.1 TOP: 8-3 Problem 3 Using Inverses
 KEY: inverse of cosine and sine | angle measure using sine and cosine | sine
 DOK: DOK 2
30. ANS: B PTS: 1 DIF: L3 REF: 8-5 Vectors

- OBJ: 8-5.1 Describe vectors STA: MA.912.D.9.3| MA.912.G.5.1| MA.912.G.5.4
TOP: 8-5 Problem 1 Describing a Vector
KEY: vector | initial point of a vector | terminal point of a vector | vector coordinates
DOK: DOK 2
31. ANS: A PTS: 1 DIF: L3 REF: 8-5 Vectors
OBJ: 8-5.2 Solve problems involving vector addition
STA: MA.912.D.9.3| MA.912.G.5.1| MA.912.G.5.4 TOP: 8-5 Problem 4 Adding Vectors
KEY: adding vectors | vector coordinates | vector | resultant DOK: DOK 1
32. ANS: C PTS: 1 DIF: L3 REF: 9-1 Translations
OBJ: 9-1.2 Find translation images of figures STA: MA.912.G.2.4| MA.912.G.2.6
TOP: 9-1 Problem 3 Finding the Image of a Translation
KEY: translation | transformation | coordinate plane | image | preimage
DOK: DOK 1
33. ANS: A PTS: 1 DIF: L3 REF: 9-1 Translations
OBJ: 9-1.2 Find translation images of figures STA: MA.912.G.2.4| MA.912.G.2.6
TOP: 9-1 Problem 4 Writing a Rule to Describe a Translation KEY: translation
DOK: DOK 1
34. ANS: D PTS: 1 DIF: L3 REF: 9-2 Reflections
OBJ: 9-2.1 Find reflection images of figures STA: MA.912.G.2.4| MA.912.G.2.6
TOP: 9-2 Problem 2 Graphing a Reflection Image KEY: coordinate plane | reflection
DOK: DOK 2
35. ANS: D PTS: 1 DIF: L3 REF: 9-3 Rotations
OBJ: 9-3.1 Draw and identify rotation images of figures STA: MA.912.G.2.4| MA.912.G.2.6
TOP: 9-3 Problem 2 Identifying a Rotation Image KEY: rotation | degree of rotation | image
DOK: DOK 2
36. ANS: B PTS: 1 DIF: L3 REF: 9-4 Symmetry
OBJ: 9-4.1 Identify the type of symmetry in a figure STA: MA.912.G.2.4
TOP: 9-4 Problem 1 Identifying Lines of Symmetry KEY: rotational symmetry | symmetry
DOK: DOK 1
37. ANS: B PTS: 1 DIF: L3 REF: 9-4 Symmetry
OBJ: 9-4.1 Identify the type of symmetry in a figure STA: MA.912.G.2.4
TOP: 9-4 Problem 2 Identifying Rotational Symmetry KEY: symmetry | rotational symmetry
DOK: DOK 2
38. ANS: D PTS: 1 DIF: L3 REF: 9-5 Dilations
OBJ: 9-5.1 Understand dilation images of figures STA: MA.912.G.2.4| MA.912.G.2.6
TOP: 9-5 Problem 1 Finding a Scale Factor KEY: dilation | reduction | scale factor
DOK: DOK 2
39. ANS: A PTS: 1 DIF: L3
REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Find the area of parallelograms and triangles STA: MA.912.G.2.5| MA.912.G.2.7
TOP: 10-1 Problem 4 Finding the Area of an Irregular Figure KEY: area | triangle | rectangle
DOK: DOK 2
40. ANS: A PTS: 1 DIF: L3
REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Find the area of parallelograms and triangles STA: MA.912.G.2.5| MA.912.G.2.7
TOP: 10-1 Problem 2 Finding a Missing Dimension KEY: parallelogram | area | base | height
DOK: DOK 2
41. ANS: A PTS: 1 DIF: L4
REF: 10-1 Areas of Parallelograms and Triangles
OBJ: 10-1.1 Find the area of parallelograms and triangles STA: MA.912.G.2.5| MA.912.G.2.7

- TOP: 10-1 Problem 3 Finding the Area of a Triangle KEY: area | triangle
DOK: DOK 2
42. ANS: B PTS: 1 DIF: L3
REF: 10-2 Areas of Trapezoids, Rhombuses, and Kites
OBJ: 10-2.1 Find the area of a trapezoid, rhombus, or kite STA: MA.912.G.2.5| MA.912.G.2.7
TOP: 10-2 Problem 2 Finding Area Using a Right Triangle KEY: area | trapezoid
DOK: DOK 2
43. ANS: B PTS: 1 DIF: L2 REF: 10-3 Areas of Regular Polygons
OBJ: 10-3.1 Find the area of a regular polygon
STA: MA.912.G.2.5| MA.912.G.2.7| MA.912.G.5.3| MA.912.G.6.1
TOP: 10-3 Problem 3 Using Special Triangles to Find Area
KEY: regular polygon | hexagon | area | apothem | radius DOK: DOK 2
44. ANS: A PTS: 1 DIF: L3
REF: 10-4 Perimeters and Areas of Similar Figures
OBJ: 10-4.1 Find the perimeters and areas of similar polygons
STA: MA.912.G.2.3| MA.912.G.2.5| MA.912.G.2.7| MA.912.G.4.4
TOP: 10-4 Problem 1 Finding Ratios in Similar Figures KEY: perimeter | area | similar figures
DOK: DOK 1
45. ANS: A PTS: 1 DIF: L3
REF: 11-1 Space Figures and Cross Sections
OBJ: 11-1.1 Recognize polyhedra and their parts STA: MA.912.G.7.2| MA.912.G.7.3
TOP: 11-1 Problem 2 Using Euler's Formula
KEY: polyhedron | face | vertices | edge | Euler's Formula DOK: DOK 1
46. ANS: D PTS: 1 DIF: L4
REF: 11-2 Surface Areas of Prisms and Cylinders
OBJ: 11-2.1 Find the surface area of a prism and a cylinder
STA: MA.912.G.7.1| MA.912.G.7.5| MA.912.G.7.7
TOP: 11-2 Problem 2 Using Formulas to Find Surface Area of a Prism
KEY: surface area formulas | lateral area | surface area | prism | surface area of a prism
DOK: DOK 2
47. ANS: B PTS: 1 DIF: L3
REF: 11-3 Surface Areas of Pyramids and Cones
OBJ: 11-3.1 Find the surface area of a pyramid and a cone STA: MA.912.G.7.5| MA.912.G.7.7
TOP: 11-3 Problem 1 Finding the Surface Area of a Pyramid
KEY: surface area of a pyramid | surface area | surface area formulas | pyramid
DOK: DOK 2
48. ANS: C PTS: 1 DIF: L3
REF: 11-3 Surface Areas of Pyramids and Cones
OBJ: 11-3.1 Find the surface area of a pyramid and a cone STA: MA.912.G.7.5| MA.912.G.7.7
TOP: 11-3 Problem 4 Finding the Lateral Area of a Cone
KEY: cone | surface area of a cone | surface area formulas | surface area
DOK: DOK 2
49. ANS: A PTS: 1 DIF: L3
REF: 11-4 Volumes of Prisms and Cylinders
OBJ: 11-4.1 Find the volume of a prism and the volume of a cylinder
STA: MA.912.G.7.5| MA.912.G.7.7 TOP: 11-4 Problem 3 Finding the Volume of a Cylinder
KEY: cylinder | volume of a cylinder | volume DOK: DOK 2
50. ANS: C PTS: 1 DIF: L3
REF: 11-6 Surface Areas and Volumes of Spheres
OBJ: 11-6.1 Find the surface area and volume of a sphere

- STA: MA.912.G.7.4| MA.912.G.7.5| MA.912.G.7.7
 TOP: 11-6 Problem 3 Finding the Volume of a Sphere
 KEY: volume of a sphere | sphere | volume formulas | volume DOK: DOK 2
51. ANS: C PTS: 1 DIF: L2 REF: 12-1 Tangent Lines
 OBJ: 12-1.1 Use properties of a tangent to a circle
 STA: MA.912.G.6.1| MA.912.G.6.2| MA.912.G.6.3 TOP: 12-1 Problem 2 Finding Distance
 KEY: tangent to a circle | point of tangency | properties of tangents | Pythagorean Theorem
 DOK: DOK 2
52. ANS: A PTS: 1 DIF: L3 REF: 12-1 Tangent Lines
 OBJ: 12-1.1 Use properties of a tangent to a circle
 STA: MA.912.G.6.1| MA.912.G.6.2| MA.912.G.6.3
 TOP: 12-1 Problem 5 Circles Inscribed in Polygons
 KEY: properties of tangents | tangent to a circle | triangle DOK: DOK 2
53. ANS: B PTS: 1 DIF: L2 REF: 12-2 Chords and Arcs
 OBJ: 12-2.1 Use congruent chords, arcs, and central angles
 STA: MA.912.G.6.1| MA.912.G.6.2| MA.912.G.6.3
 TOP: 12-2 Problem 4 Finding Measures in a Circle
 KEY: arc | central angle | congruent arcs | arc measure | arc addition | diameter
 DOK: DOK 1
54. ANS: C PTS: 1 DIF: L3 REF: 12-3 Inscribed Angles
 OBJ: 12-3.2 Find the measure of an angle formed by a tangent and a chord
 STA: MA.912.G.6.3| MA.912.G.6.4 TOP: 12-3 Problem 3 Using Arc Measure
 KEY: circle | inscribed angle | tangent-chord angle | intercepted arc | arc measure | angle measure
 DOK: DOK 2
55. ANS: B PTS: 1 DIF: L3
 REF: 12-4 Angle Measures and Segment Lengths
 OBJ: 12-4.2 Find the lengths of segments associated with circles
 STA: MA.912.G.6.2| MA.912.G.6.3| MA.912.G.6.4
 TOP: 12-4 Problem 3 Finding Segment Lengths KEY: segment length | tangent | secant
 DOK: DOK 2