Name_____ Date_____

Unit 4 - Chapter 12 & 14 Review

Terms that you should know:

- ☐ Right Angle
- ☐ Acute Angle
- ☐ Obtuse Angle
- ☐ Adjacent Angles
- ☐ Vertical Angles
- ☐ Complementary Angles
- ☐ Supplementary Angles
- ☐ Right Triangle
- ☐ Acute Triangle
- ☐ Obtuse Triangle
- ☐ Scalene Triangle
- ☐ Isosceles Triangle
- ☐ Equilateral Triangle
- ☐ Equiangular Triangle
- ☐ Trapezoid
- ☐ Kite
- ☐ Parallelogram
- ☐ Rhombus
- ☐ Rectangle
- ☐ Square
- ☐ Scale
- ☐ Scale Factor
- ☐ Legs
- ☐ Hypotenuse

Formulas that you should know:

Area of a rectangle = _____

Area of a parallelogram = _____

Area of a triangle = _____

Area of a trapezoid = _____

Circumference = _____

Area of a circle = _____

Surface area of a cylinder = _____

Volume of a prism = _____

Volume of a pyramid = _____

Volume of a cylinder = _____

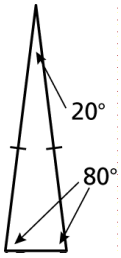
Volume of a cone = _____

Volume of a Sphere = _____

Pythagorean Theorem: _____ Distance Formula: _____

Complete the following:

1) Which statement describes the triangle shown below?



a) It is isosceles and acute

b) It is isosceles and obtuse.

c) It is scalene and acute.

d) It is scalene and obtuse.

2) Which of the following are always congruent?

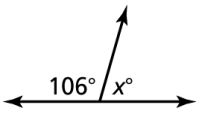
a) adjacent angles

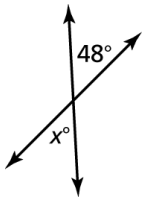
b) vertical angles

c) complementary angles

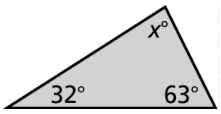
d) supplementary angles

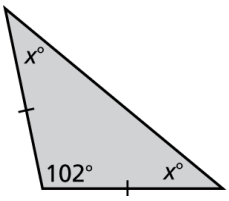
Tell whether the angles are *adjacent* or *vertical*. Then find the value of *x*.

3) 

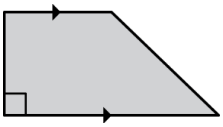
4) 

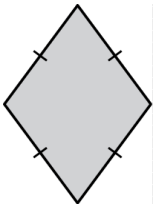
Find the value of *x*. Then classify the triangle. Show all algebraic work.

5) 

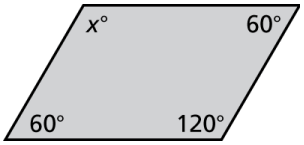
6) 

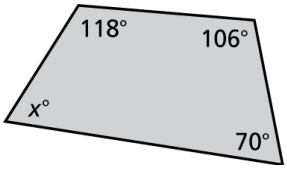
Classify the quadrilateral.

7) 

8) 

Find the value of *x*. Show all algebraic work.

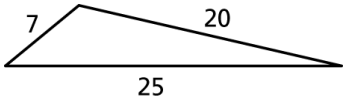
9) 

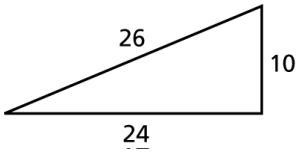
10) 

11) Find the missing dimension. Use the scale factor 1 : 15.

Item	Model	Actual
Tree	Height: ? ft	Height: 30 ft
Door	Height: 10 in.	Height: ? in.

Tell whether the triangle with the given side lengths is a right triangle. SHOW ALL WORK.

12) 

13) 

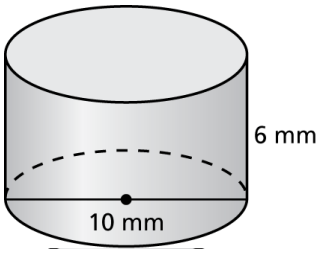
Find the distance between the two points. SHOW ALL WORK.

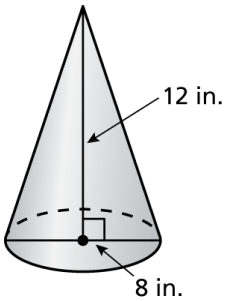
14) $(2, -4), (3, -1)$

15) $(3, 2), (7, 5)$

16) On the Junior League baseball field, you run 60 feet to first base and then 60 feet to second base. You are out at second base and then run directly along the diagonal to home plate. Find the total distance that you ran. Round your answer to the nearest tenth.

Find the volume of the solid. SHOW ALL WORK. Round your answer to the nearest tenth.

17) 

18) 

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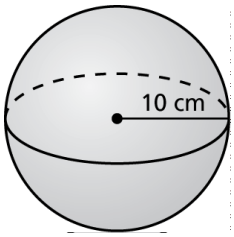

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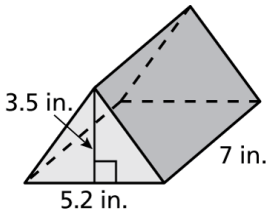

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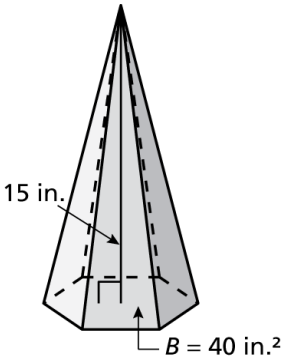

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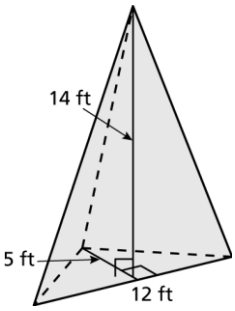

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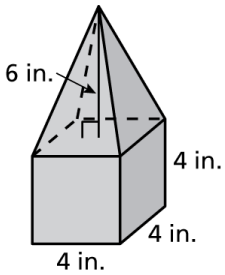
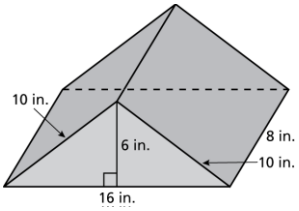


Find the surface area of the solid. SHOW ALL WORK. Round your answer to the nearest tenth.

24)



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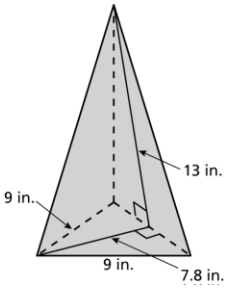

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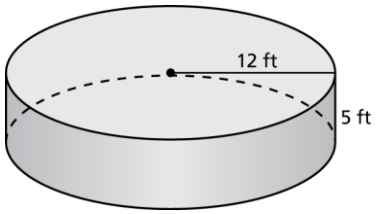
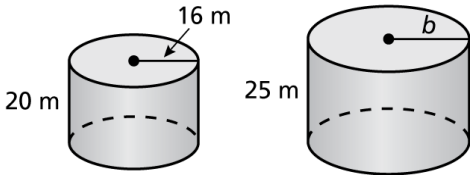


The solids are similar. Find the missing dimension,

27)



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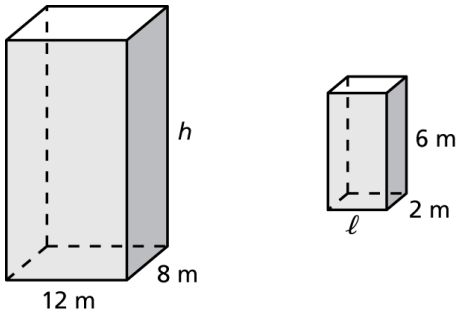
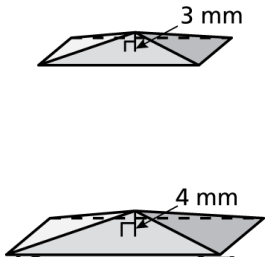


The solids are similar. Find the surface area or the volume of the larger solid. Round your answer to the nearest tenth.

29) Volume = 250 mm^3



30) Surface Area = 130 ft^2