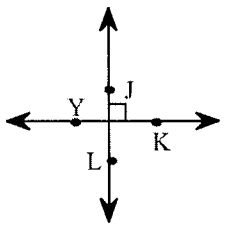
Student: _____ **Instructor:** Jose Lopez II **Assignment:** Chapter 7 Test A
Date: _____ **Course:** MA 095 Spring 2016

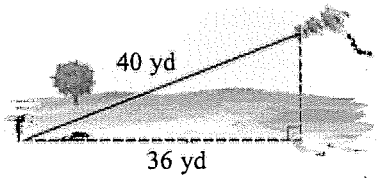
1. Determine whether the pair of lines appear to be parallel, perpendicular, or intersecting.



Choose the correct answer below.

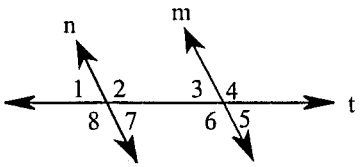
- ○ Perpendicular
- ○ Parallel
- ○ Intersecting, but not perpendicular

2. You are flying your dragon kite on 40 yd of string. The kite is directly above the edge of a pond. The edge of the pond is 36 yd from where the kite is tied to the ground. How far is the kite above the pond?



The height is approximately _____ yards. (Round to the nearest tenth.)

3. In the figure, m is parallel to n and m $\angle 4 = 122^\circ$. Find the measures of the other angles.

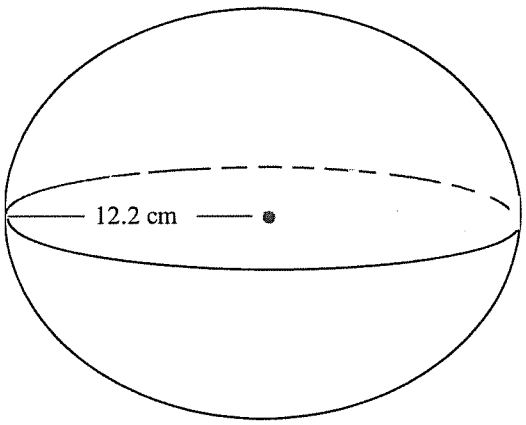


The measure of $\angle 6$ = _____°.
The measure of $\angle 2$ = _____°.
The measure of $\angle 8$ = _____°.
The measure of $\angle 5$ = _____°.
The measure of $\angle 3$ = _____°.
The measure of $\angle 7$ = _____°.
The measure of $\angle 1$ = _____°.

4. The backyard of a new home is shaped like a trapezoid with a height of 44 ft and bases of 79 ft and 111 ft. What is the cost of putting sod on the yard, if the landscaper charges $0.27 per square foot for sod?

The sod will cost $_____.

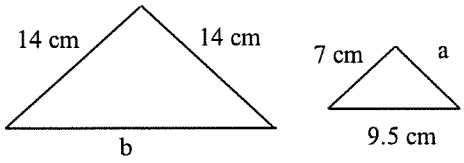
5.



An oil candle globe made of hand-blown glass has a diameter of 24.4 cm. What is the volume of the globe?

Volume = _____ cm^3
(Use 3.14 for π. Round to the nearest hundredth.)

6. Find the unknown lengths in the pair of similar triangles. (Triangles are not drawn to scale. Assume corresponding sides are in the same position within each triangle.)



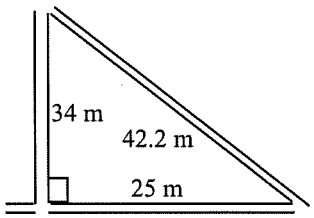
a = _____ cm

b = _____ cm

7. A radio station can be heard 147 miles in all directions during evening hours. How many square miles are in the station's broadcast area? Use 3.14 as the approximiate value of π.

The broadcast area is _____ mi^2.
(Simplify your answer. Type a whole number or decimal rounded to the nearest tenth as needed.)

8. A triangular space between three streets has measurements shown. How much new curbing will be needed to go around the space? How much sod will be needed to cover the space?



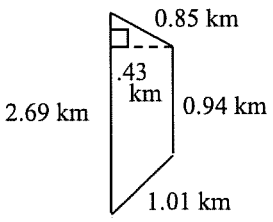
The space needs _____ m curbing.

The space needs _____ m^2 sod.

9. Tyra's kitchen is 4.2 m wide and 6.3 m long. She is pasting a decorative border strip that costs $3.99 per meter around the top edge of all the walls. How much will she spend?

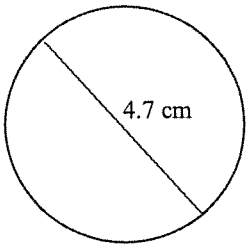
Tyra will spend $_____.
(Type a whole number or a decimal rounded to the nearest cent as needed.)

10. Find the perimeter.



The perimeter is _____ km.

11. Find the circumference and area of the circle. Use 3.14 as the approximate value for π.



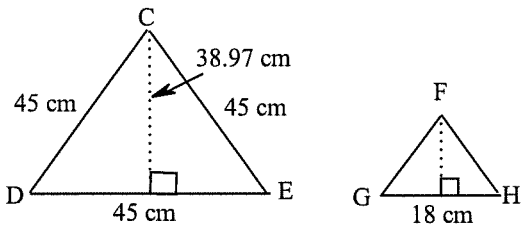
The circumference is approximately _____ cm.
(Simplify your answer. Type a whole number or decimal rounded to the nearest hundredth as needed.)

The area is approximately _____ cm^2.
(Simplify your answer. Type a whole number or decimal rounded to the nearest hundredth as needed.)

12. Triangles CDE and FGH are similar. Find the perimeter and area of triangle FGH.

Note: The heights of similar triangles have the same ratios as the corresponding sides.

(Triangles are not drawn to scale.)

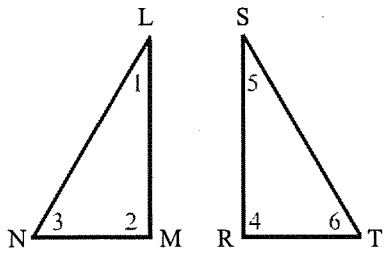


The perimeter of triangle FGH is _____ cm.

The height of triangle FGH is approximately _____ cm.
(Round to the nearest hundredth.)

The area of triangle FGH is approximately _____ cm^2.
(Round to the nearest hundredth.)

13. The pair of triangles is congruent. List the corresponding angles and the corresponding sides.



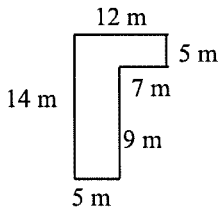
List the corresponding angles.

$\angle 3$ and $\angle$ _____ $\angle 1$ and $\angle$ _____ $\angle 2$ and $\angle$ _____

List the corresponding sides.

$\overline{NL}$ and _____ $\overline{LM}$ and _____ $\overline{MN}$ and _____

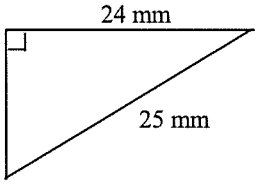
14. Find the perimeter and the area of the following figure.



The perimeter = _____ m.

The area = _____ sq m.

15. Find the unknown length in the right triangle. Use a calculator to find square roots.



The unknown length is _____ mm. (Round to the nearest tenth as needed.)

1. Perpendicular

2. 17.4

3. 122
122
122
58
58
58
58

4. 1128.60

5. 7602.35

6. 7
19.0

7. 67,852.3

8. 101.2
425

9. 83.79

10. 5.49

11. 14.76
17.34

12. 54
15.59
140.31

13. 6
5

4

TS

SR

RT

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14. 52

105

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15. 7
