**Math 7/8** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**Unit 1: Geometry** Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**STUDY GUIDE for Unit 1 Test☺**

**Knowledge and Understanding**

1. What is the circumference of a circle?
2. What is the diameter of a circle?
3. How are they related?
4. What is the formula for finding the surface area of a rectangular prism?
5. Draw an isosceles triangle with only one (1) 80 degree angle.
6. Find the measure of angle 1:

127



1. What is the volume of the triangular prism?

26

22

30

1. A pizza has an area of 254.34 in². What is the minimum size of a placemat that can be placed underneath it so that the pizza does not touch the table? Use 3.14 for pi.
2. Steve and Sara are running around a circular track in the park. The diameter of the track is 0.6 miles. If they ran twice around the track, how many miles will they have ran?
3. The top of the Washington Monument is a square pyramid covered with white marble. Each triangular face is 48 feet tall and 44 feet wide. About how many square feet of marble covers the top of the monument if the base is hollow?
4. Can you have a triangle with 3 sides measuring 12 cm, 4 cm, and 8cm?
5. A triangle with all angles 60 degrees and a side of 10 cm. Classify this triangle.



**For numbers 12 – 15, solve for the missing angles.**

1. 

3x-1

X +15

1. 

4x + 8

4x



1. 

4X

80

20

1. In the triangle shown, the measure of  is 35 degrees, the measure of is 120 degrees, and the measure of is 25 degrees. What is the measure of?

Label all the angle measures as you find them.



1. Find the area of the triangle below.



32.5 inches

15 inches

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | 49.5 in  | B. | 80 in2 | C. | 60 in2 | D. | 172 in2 |

1. Find the surface area of the rectangular prism shown below.

6 in

3 in

4 in

8 in

7 in

10 in

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | 52 in² | B. | 412 in² | C. | 299 in² | D. | 206 in² |

1. Find the area of the given figure (round to the nearest whole numbe)r:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | 525 cm² | B. | 100 cm² | C. | 400 cm² | D. | 500 cm² |
|  |  |  |  |  |  |  |  |



16

25 CM

***Questions 20-22:Can these be triangles? Identify as Isosceles, Scalene or Equilateral***

1. Side=12” side=12” side=36”\_\_\_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Side=14” side=12” side=15”\_\_\_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Side=19” side=19” side=5” \_\_\_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Questions 23-25 Can these be triangles? Identify as Right, Acute or Obtuse***

1. < 120 ‘ <60 ‘ <10 ‘ \_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. <94 ‘ <36 ‘ <50 ’ \_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. <45 ‘ <35 ‘ <90 ‘ \_\_\_\_\_\_\_\_\_\_ TYPE OF TRIANGLE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_