Mathematics

Power Standard 8:4

Summative Test

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_\_\_\_

Show work for each problem

1. A quadrilateral with opposite sides that are parallel, opposite sides that are congruent, and 4 right angles is called a:
2. trapezoid
3. parallelogram
4. rhombus
5. rectangle
6. A triangle with a 900 angle and no congruent sides is called:
7. Right isosceles
8. Right obtuse
9. Right scalene
10. Acute right
11. Compare a square with a rhombus. Needs box for work
12. Compare a isosceles right triangle with a scalene right triangle. Needs box for work
13. If triangle ABC is similar to triangle DEF and the measure of Angle A is 400, then which one of the following is true?
14. Angle E is 400
15. Angle D is 400
16. Angle B is 600
17. None of the above
18. If quadrilateral ABCD is similar to quadrilateral EFGH, then which one of the following is true?
19. Angle A is congruent to Angle F
20. Angle G is congruent to Angle H
21. The measures of their corresponding sides are proportional
22. None of the above
23. A photograph is 5 in. wide and 8 in. long. A yearbook editor has the photo reduced to fit a space 2 in. wide. How long is the reduced photograph? Show your work. Needs box for work

8. A telephone pole casts a 24-foot shadow. At the same time, Sam, who is 5 feet 6 inches, casts a shadow that is 8 feet. How tall is the telephone pole? Show your work. Needs box for work

9.A blueprint of a house is drawn to a scale of 1 in. = 2 ft. If the actual length of a room is 16.2 feet, how long will it be on the blueprint?

1. 8.1 inches
2. 32.4 inches
3. 24 inches
4. 14.2 inches

10. The model of a ship has an actual length of 18 meters. If the model is 6 cm long, what is the scale of the model?

a. 1/3

b. 1 cm = 3 meters

c. 1 meter = 3 cm

d. 1 cm = 54 meters

11. Suppose two triangles are similar with a scale factor of 9. What is the ratio of their areas?

a. 1:9

b. 1:18

c. 1:81

d. 1:3

12. Suppose the ratio between the corresponding areas of two similar rectangles is 1:16. If the perimeter of the smaller rectangle is 5 inches, what is the perimeter of the larger rectangle? Show your work. Needs box for work

13. Suppose 2 triangles are similar with a scale factor of 8. What is the ratio of their areas? Explain. Needs box for work

14. Suppose 2 triangles are similar with a scale factor of 8. What is the ratio of their perimeters? Explain. Needs box for work