Mathematics

Power Standard 8:4

Post-Formative Test

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

Show work for each problem.

1. A parallelogram with only one pair of parallel sides is called:
2. Square
3. Trapezoid
4. Square prism
5. Rhombus
6. A triangle with one angle that measures more than 900 is called:
7. Acute
8. Oblong
9. Scalene
10. Obtuse
11. Compare an equilateral triangle with an isosceles triangle. Needs answer box
12. Compare a parallelogram with a trapezoid. Needs answer box
13. If two polygons are similar, then their corresponding angles are congruent AND
14. The measures of their corresponding sides are proportional
15. The measures of their corresponding sides are congruent
16. Nothing else is true
17. Corresponding angles are proportional
18. Triangle ABC is similar to triangle XYZ. Identify the true statement about these 2 triangles.
19. Angle B is congruent to angle A
20. Angle C is congruent to angle Z
21. Angle B is congruent to angle Y
22. Side AB is always congruent to side XY
23. A marathon runner ran the first 5 miles in 35.5 minutes. If she continues running at this pace, how long will it take her to run the entire marathon of 26.2 miles? Show your work. Needs answer box
24. A child 4½ feet tall casts a 7-foot shadow. At the same time, a nearby statue casts a 14 – foot shadow. What is the height of the statue?

Show your work. Needs answer box

1. The model of a building being designed is 30.2 centimeters tall. If the actual building is to be 75.5 meters tall, what is the scale of the model?
2. 1 cm = 0.01 m
3. 1 cm = 0.4 m
4. 1 m = 2.5 cm
5. 1 cm = 2.5 m
6. The scale factor on a map is 1.5 inches = 15 miles. What is the actual distance if the distance on a map is 7½ inches?
7. 3 miles
8. 112.5 miles
9. 75 miles
10. 168.75 miles
11. Suppose two rectangles are similar with a scale factor of 5. What is the ratio of their perimeters?
12. 1:5
13. 1:25
14. 1:2
15. 1:10
16. Suppose the ratio between the corresponding sides of two similar rectangles is 1:3. If the area of the smaller rectangle is 16 square inches, what is the area of the larger rectangle? Needs answer box
17. Suppose 2 squares are similar with a scale factor of 5. What is the ratio of their areas? Explain. Needs answer box
18. Suppose 2 squares are similar with a scale factor of 5. What is the ratio of their perimeters? Explain. Needs answer box