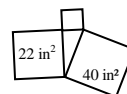


Study Guide 8th Grade Unit 3

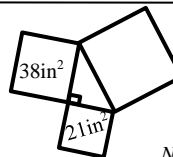
No Calculators on 1-8

1. What is the area of the smallest square?



CC.8.G.6

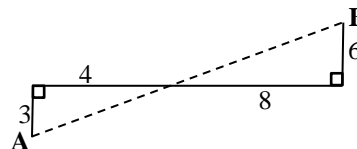
2. What is the area of the largest square?



CC.8.G.6

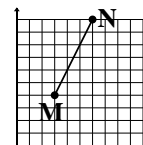
Not drawn to scale

3. What is the distance between Points A and B?



CC.8.G.8

4. Look at line segment MN on the graph. How many units long is line segment MN?
Round to nearest tenth.



CC.8.G.8

5. If $z^3 = y$; then $z =$

CC.8.EE.2

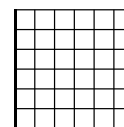
6. The model is a square with an area of 36 square units. Which of the following equation can be used to determine s , the side length of this model in units?

A. $s = 36$

B. $s = \sqrt{12}$

C. $s = 6^6$

D. $s = \sqrt{36}$



CC.8.EE.2

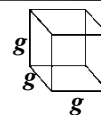
7. If the cube has a side length of g , then which expression represents the volume of the cube?

A. $\sqrt[3]{g}$

B. \sqrt{g}

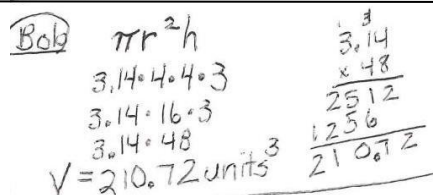
C. g^2

D. g^3



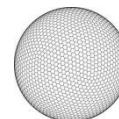
CC.8.EE.2

8. Look at Bob's work for finding the volume of a cone with a height of 3 and a diameter of 8.
Find his error



CC.8.G.9

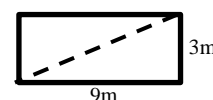
9. Find the volume of a sphere with a diameter of 8 meters.
Leave answer in terms of pi.



CC.8.G.9

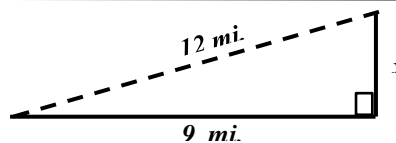
Calculators allowed on 10-21

10. Estimate the diagonal of the rectangle .



CC.8.G.7

11. Find x .



CC.8.G.7

12. Cylinder X has a radius of 5 inches and a height of 1 inches. Cylinder Y has a radius of 1 inches and a height of 5 inches. How do they compare?
(The one on the test has a drawing to make it easier.) CC.8.G.9
-

13. A sphere has a radius of 8 meters. Find the volume of the sphere. Leave answer in terms of π . CC.8.G.9
-

14. A cylinder has a diameter of 6 inches and a height of 8 inches. Approximately how many cubic inches will it hold? Leave answer in terms of π . CC.8.G.9
-

15. What is the approximate volume of cylinder with a diameter of 6 and a height of 2?
Use 3.14 for π . Round answer to the nearest tenth. CC.8.G.9
-

16. What is the volume of a cone with a height of 4 and a diameter of 8? CC.8.G.9
-

17. If the diagonal of the square is 6 feet, what is the measurement of the sides of the square? CC.8.G.7



18. Find the height of a cylinder that has a diameter of 12 and a volume of $1,017.9 \text{ in}^3$ (rounded).
(Use the pi button on the calculator.) CC.8.G.9
-

19. Find the height of a cone that has a radius of 9 and a volume of $108\pi \text{ ft}^3$. CC.8.G.9
-

20. Find the **radius** of a sphere that has a volume of $972\pi \text{ in}^3$. CC.8.G.9
-

21. What is the **diameter** of the sphere in question 20? CC.8.G.9
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