

Name: Key Date: _____ Period: _____

Unit 3 Review

1. Which of the following numbers is a perfect cube?

- A. 3 B. 36 C. 30 **D. 64**

2. Which of the following best represents $\sqrt{60}$?

- A number between...
 A. 3 and 4 B. 5 and 6
C. 7 and 8 D. 9 and 10

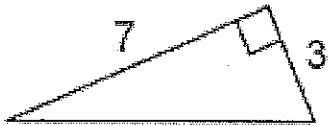
3. A square shaped playground has an area of 290ft². Approximately how long is one side?

- A. 12 ft **B. 17 ft** C. 36 ft D. 73 ft

4. If $\sqrt[3]{b} = 5$, what is the value of b?

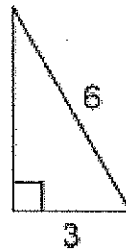
- A. 15 **B. 125** C. 100 D. 25

5. Find the missing hypotenuse length.



- a. 5 **b. 7.5** c. 58 d. 20

6. Find the missing leg length.



- a. ≈ 5.2**
 b. ≈ 6.7
 c. ≈ 2.4
 d. ≈ 5.6

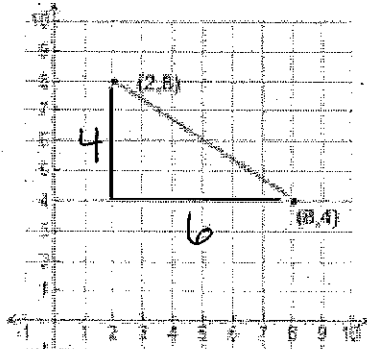
7. A triangle has side lengths of 5, 12, and 13. Is it a right triangle?

- a. Yes, because $25+144=169$**
 b. No, because $10+24 \neq 26$
 c. No, because $5+12 \neq 13$
 d. No, because you can't tell without a picture.

8. Find the volume of a cylinder that has a radius of 12 feet and a height of 12 feet.

- a. 904.32 ft³
 b. 113.04 ft³
 c. 452.16 ft³
d. 5425.92 ft³

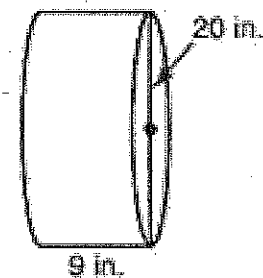
9. What is the length between the points shown below?



- a. 24
 b. 10
 c. 26
d. 7

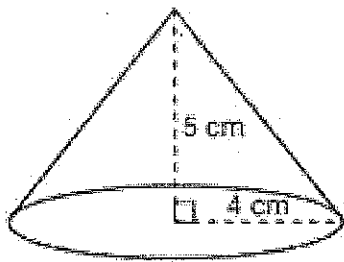
10. Find the exact volume of the cylinder below.

- a. $3600 \pi \text{ in}^3$
b. $900 \pi \text{ in}^3$
 c. $360 \pi \text{ in}^3$
 d. $180 \pi \text{ in}^3$



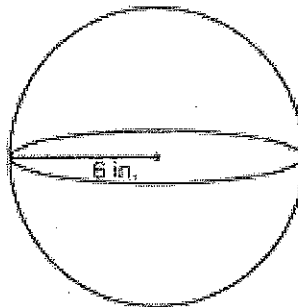
11. Find the exact volume of the cone below.

- a. $\frac{40}{3} \pi \text{ yd}^3$
 b. $\frac{20}{3} \pi \text{ yd}^3$
 c. $\frac{100}{3} \pi \text{ yd}^3$
 d. $\frac{80}{3} \pi \text{ yd}^3$



12. Find the exact volume of the sphere below.

- a. $16\pi \text{ in}^3$
 b. $48\pi \text{ in}^3$
 c. $288\pi \text{ in}^3$
 d. $24\pi \text{ in}^3$



13. What is a decimal equivalent of the rational number $-\frac{3}{16}$?

- A. -5.3 B. -3.16 C. -0.1875 D. -16.3

14. What rational number has 0.44 as its decimal equivalent?

- A. $\frac{11}{25}$ B. $\frac{22}{5}$ C. $\frac{2}{5}$ D. $\frac{4}{9}$

15. Represent $0.\overline{27}$ as a fraction in simplest form.

- A. $\frac{27}{100}$ B. $\frac{1}{3}$ C. 3 D. $\frac{3}{11}$

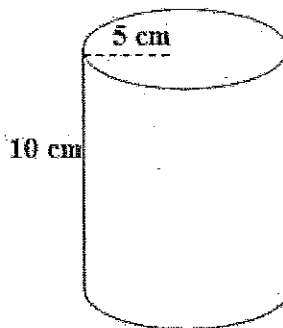
16. Which of the following is NOT a rational number?

- A. -98 B. $\sqrt{30}$ C. $0.\overline{23}$ D. $\sqrt[3]{27}$

17. In a computer catalog, a computer monitor is listed as being 19 inches. This distance is the diagonal distance across the screen. If the screen measures 10 inches in height, what is the actual width of the screen to the nearest inch?

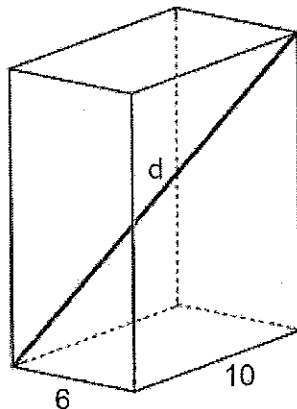
- A. 10 in. B. 4 in. C. 16 in. D. 19 in.

18. What is the exact volume of the shape below?



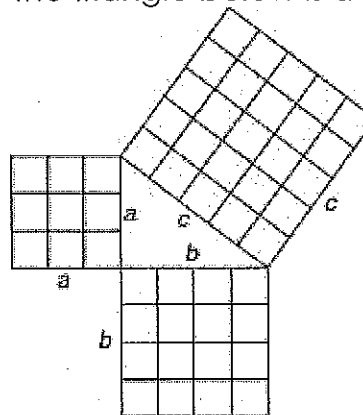
- A. $100\pi \text{ cm}^3$
 B. 250 cm^3
 C. $250\pi \text{ cm}^3$
 D. 100 cm^3

19. Find the length of the diagonal, d , in the rectangular prism shown below.



- A. 31
 B. 19
 C. 16
 D. 25

20. Which of the following equations proves the triangle below is a right triangle?



- A. $3^2 + 4^2 = 5^2$
 B. $3^2 + 5^2 = 4^2$
 C. $3 + 4 = \sqrt{5}$
 D. $\sqrt{3} + \sqrt{4} = \sqrt{5}$