

Algebra 1 Worksheet - AHSGE Review (13 topics - ID514)**Multiple Choice**

Identify the letter of the choice that best completes the statement or answers the question. Show all work!

1. What is the equation of the line passing through the points (2, 5) and (4, 6)?
a. $y = 2x + 1$ b. $y = \frac{1}{2}x + 4$ c. $y = -\frac{1}{2}x + 6$ d. $y = -2x + 9$
2. What is the equation of a line with slope $\frac{3}{4}$ that passes through the point $(-4, -5)$?
a. $y = \frac{3}{4}x - \frac{31}{4}$ b. $y = \frac{3}{4}x - \frac{1}{4}$ c. $y = \frac{3}{4}x - 8$ d. $y = \frac{3}{4}x - 2$
3. Which of these dimensions form a right triangle similar to a right triangle with a height of 20 feet and a base of 15 feet?
a. 40 feet by 35 feet b. 25 feet by 30 feet c. 10 feet by 5 feet d. 4 feet by 3 feet
4. A box has a volume of 640 cubic centimeters, a height of 10 centimeters, and a square base. What is the length of a side of the base?
a. 8 centimeters b. 16 centimeters c. 32 centimeters d. 64 centimeters
5. A circular sundial has a circumference of 32π inches. What is the area of the sundial?
a. 256π square inches b. 1024π square inches c. 256 square inches d. 1024 square inches
6. A pond was dug in the shape of a circle with diameter $d = 8$ feet. What is the approximate distance around the pond?
a. 13 feet b. 25 feet c. 50 feet d. 201 feet
7. What is the median of this set of data?
14.9, 21.7, 12.5, 20.6, 13.8, 18.2, 19.5
a. 14.9 b. 17.3 c. 18.2 d. 19.5
8. A jar contains 16 buttons—3 black, 4 white, and 9 red. One button is chosen from the jar, returned to the jar, and then another button is chosen. What is the probability that the first button selected will be white and the second button will be black?
a. $\frac{7}{16}$ b. $\frac{9}{16}$ c. $\frac{1}{20}$ d. $\frac{3}{64}$
9. A model car is built to a scale of 1:24. If the length of the model is 4 inches, what is the length of the actual car?
a. 6 feet b. 8 feet c. 12 feet d. 96 feet
10. Bryan is twice as old as Rita. The sum of their ages is 42. How old is Bryan?
a. 28 b. 21 c. 14 d. 7
11. The area of a rectangular garden is 96 square feet. The width is 4 feet less than the length. What is the length of the garden?
a. 47 feet b. 12 feet c. 9.6 feet d. 8 feet
12. The sum of three consecutive integers is 39. What is the value of the middle integer?
a. 15 b. 14 c. 13 d. 12

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Answer Section

MULTIPLE CHOICE

1. B
2. D
3. D
4. A
5. A
6. B
7. C
8. D
9. B
10. A
11. B
12. C