

PreAlgebra Summer Work - Show all work!

1. A school has 424 students. In a random sample of 30 students, 4 would like to take a web design class. About how many students at the school would like to take a web design class?
2. A deck has 12 cards numbered 1 to 12. Ashley needs a number greater than 9 to win the game. If she selects a card at random, what is the probability that she will win?
3. What is the solution of $-15 = m - 9$?
4. What is the volume and surface area of a rectangular prism that has dimensions 1 in., 2 in., and 3 in.?
5. Solve and graph the inequality $3x + 4 > -5$
6. A circle has circumference 56.52 ft. What is its area? Use 3.14 for π .
7. What is the solution of the inequality $-4p < 36$?
8. What percent of the letters of the alphabet are the vowels a, e, i, o, and u?
9. What is the solution of $\frac{x}{6} = \frac{20}{32}$?
10. At the beginning of June, the level of water in a lake compared to normal is -2.5 feet. During June the water level decreases by $3\frac{1}{4}$ feet. What is the water level of the lake compared to normal at the end of June?
11. A diver's elevation is decreasing at a rate of 30 feet per minute. If the diver starts at sea level, what will her elevation be after 2.5 minutes?
12. The monthly bill for Ramon's cell phone increased by 8%. The new monthly bill is \$59.40 What was the monthly bill before the price increase?
13. Cards A through G are in a hat. You select a card at random. you select a second card without replacement. Find the probability that both cards are vowels.
14. Write 0.9% as a decimal and a fraction.
15. It costs \$14 per hour to rent a paint sprayer plus a \$40 delivery fee. Mr. Bolton rents a paint sprayer for 6 hours. He is charged \$138. Was Mr. Bolton charged the correct amount?

16. Solve $x - 6 \geq -8$ and graph.

17. The area of a square window is $1,296 \text{ in}^2$. What is the perimeter of the window?

18. On your way to your friend's house, you start from your house and travel 0.7 miles due south. Then you turn east and travel 2.4 mi. To the nearest tenth of a mile, how far is your friend's house from your house?

19. Is it possible to construct a triangle with the given side lengths? 10 in., 12 in., and 18 in.

20. Is it possible to construct a triangle with the given side lengths? 20 m, 40 m, and 60 m.