



Workout 1

21. \$ _____ Using his \$50 gift card, Xi bought 5 apps for \$1.99 each and a new set of headphones for \$10. After these purchases, what was the remaining balance on his \$50 gift card?



22. _____ Tweets If it takes 24 seconds to write a Tweet and 8 seconds to send it, what is the greatest number of Tweets that can be written and sent in 6 minutes?


23. _____ gallons A car averages 20 miles per gallon of gas in city driving and 30 miles per gallon in highway driving. At these rates, how many gallons of gas will the car use on a 300-mile trip if $\frac{4}{5}$ of the trip distance is highway driving and the rest is city driving?

24. _____ in³ The sum of the lengths of the edges of a cube is 24 inches. What is the volume of the cube?

25. _____ combinations If Molly can choose from 5 kinds of fruit, 3 salads and 4 beverages for her lunch, how many different combinations of a fruit, a salad and a beverage can she make?

26. _____ miles The Kola Superdeep Borehole in Russia was drilled to a depth of about 40,200 feet. Given that there are 5280 feet per mile, about how deep was the hole, in miles? Express your answer as a decimal to the nearest tenth.

27. _____ If $x \odot y$ is defined as $xy + (x - y)$, what is the value of $4 \odot 2$?

28. _____ gallons  The fuel tank in Alexia's car holds 13.4 gallons of gas. How many gallons of gas does she have when her tank is one-quarter full? Express your answer as a decimal to the nearest hundredth.

29. _____ % The Dr. Seuss story *The Cat in the Hat* contains 236 distinct words, 1 of which has three syllables and 14 of which have two syllables. The rest of the words have only one syllable. What percent of the words have only one syllable? Express your answer to the nearest tenth.

30. _____ degrees In a triangle with angles measuring a , b and c degrees, the mean of b and c is a . What is the value of a ?



Workout 2

51. _____ What is the sum of the first 150 odd positive integers?

52. \$ _____



Lani started a cleaning service. During her first month in business, Lani spent \$380 on supplies and drove 800 miles at an average cost of \$0.30 per mile. In addition, her business phone and other expenses were \$198. That month Lani completed 60 jobs, earning \$50 per job. What was Lani's profit during her first month in business?

53. _____ If $2^x = 7$, what is the value of 2^{2x} ?

54. _____ permutations



How many of the permutations using one or more letters from the word TEXAS are also permutations using the letters in TENNESSEE? Two such permutations to include are ST and TS.



55. _____ ft/s If Tom travels 150 miles in 1 hour 45 minutes, what is his speed in feet per second? Express your answer as a decimal to the nearest tenth.

56. _____ baby boys

In 1990, the ten most popular names for baby boys in Gladwell were given to 3375 babies, representing about 18.70% of all baby boys born in Gladwell in 1990. In 2000, the ten most popular names for baby boys in Gladwell were given to 2115 babies, representing about 14.60% of all baby boys born in Gladwell in 2000. How many more baby boys were born in Gladwell in 1990 than in 2000? Express your answer to the nearest hundred.



57. _____ positive integers

How many positive integers each have one less digit than their squares?

58. _____ If $f(x) = 2x^2 + 8$, what is the positive value of x for which $f(x) = 136$?

59. _____ red balloons



What is the number of red balloons on a float containing 25 balloons, if 56% of the balloons are not red?

60. _____ minutes

At how many minutes after noon do the hour hand and minute hand of an analog clock first meet again? Express your answer to the nearest whole number.