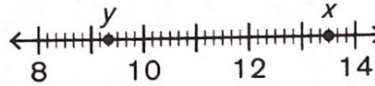





Warm-Up 1

31. _____ combinations Bob has 40 cents in his pocket. If Bob has no pennies, how many different combinations of quarters, dimes and/or nickels could he have?

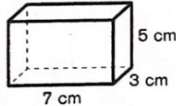
32. _____ On the number line shown, what is the value of $x - y$? Express your answer as a mixed number.



33. _____  Ted flips a coin that is equally likely to land heads up or tails up. Ted flips the coin 10 times, and each time it lands heads up. What is the probability that the next flip will also land heads up? Express your answer as a common fraction.

34. _____ What is the value of $9 + 5 \times 3 - 8 \div 2$?

35. _____ If two more than three times x is equal to five less than ten times x , what is the value of x ?

36. _____ cm^3  What is the volume of a rectangular prism of height 5 cm, width 7 cm and depth 3 cm?

37. _____ What is the average of the prime numbers between 20 and 30?

38. _____ lines How many lines of symmetry does an isosceles right triangle have?

39. _____ What is the quotient when 1,000,000,000 is divided by $2^8 \times 5^7$?

40. _____ people Of 1000 people surveyed, one-third of the 630 people who reported owning a cat also own a dog. If each person surveyed owns a cat, a dog or both, how many own a dog?

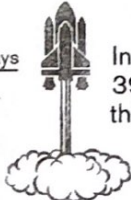


Workout 1



171. _____ cm A rectangular sheet of paper is cut in half perpendicular to the longer side. One half is discarded, and the other half is cut into thirds as shown. Two of the thirds are discarded, and the remaining third is cut into fourths by vertical lines. Three of the fourths are discarded, and the remaining fourth is cut into fifths by horizontal lines. Four of the fifths are discarded, and the remaining fifth is cut into sixths by vertical lines. Five of the sixths are discarded, leaving a square piece with side length 2 cm. What is the perimeter of the original sheet of paper?



172. _____ days  In 1969, the Apollo 10 mission set the record for the fastest crewed space travel, at 39,897 km/h. At that speed, how many days would it take to travel 54.6 million km, the minimum distance from Earth to Mars? Express your answer to the nearest whole number.

173. _____ Yeong multiplies two-digit positive integers AB and CD . If the digits A , B , C and D are all distinct, what is the greatest possible value of the product?


174. \$ _____ Karli paid \$3.00 for lunch every day she attended school. During a six-week period, Karli attended school every Monday through Friday, with the exception of one school holiday. What is the total amount that Karli spent on school lunches during this six-week period?

175. _____ What is the sum of the mean, median, mode and range of the numbers 15, 33, 24, 10, 20 and 24?

176. _____ gallons A certain race car consumes 1.3 gallons of fuel during each lap of a race. If each lap is 2.5 miles, and the entire race is 500 miles, how much fuel does the race car consume from start to finish?



177. _____ inches One television screen measures 56 inches long and 33 inches wide. A smaller, geometrically similar television screen measures 48 inches long. What is the width of the smaller screen? Express your answer as a decimal to the nearest tenth.

178. _____ mi/h  Lindsay starts at the peak of a mountain, and it takes her 50 minutes to hike 15,000 feet. What was her average walking speed, in miles per hour, given 1 mile = 5280 feet? Express your answer as a decimal to the nearest tenth.

179. _____ Let a be the arithmetic mean of 3.27 and 17.95. Let b be the product of 32.7 and 0.4382. Let c be the quotient of 2.637 and 0.316. Let d be the absolute difference between 793.241 and 804.3692. What is the numerical value of the median of a , b , c and d ? Express your answer as a decimal to the nearest hundredth.

180. _____ units² Jessie makes butterfly wings by shading four sections of a regular hexagon as shown. If the hexagon has side length $4\sqrt{3}$ units, what is the area of the shaded region? Express your answer in simplest radical form.

