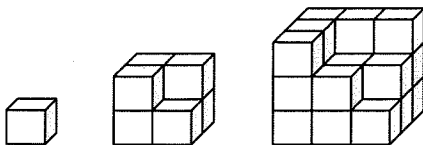




Warm-Up 10

151. _____ players For each of the 20 basketball games this season, Coach Washington needs to choose 5 players to start. If he doesn't want the same 5 players starting together more than once, what is the minimum number of players the coach needs on his team roster?

152. _____ cubes



If this pattern continues, how many cubes will be in the next figure?

153. _____ In a particular arithmetic sequence, the fourth term is 38, and the sum of the second and seventh terms is 85. What is the value of the fifth term of the sequence?

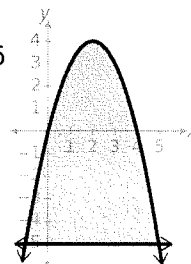
154. _____ units² Let O be the point (0, 0) in the coordinate plane, and let A be the point (3, 7). If B is the point obtained by rotating A 90 degrees counterclockwise about O, then what is the area of triangle ABO?

155. _____ pairs How many ordered pairs of integers (x, y) satisfy the equation $x^2 + y^2 = 2500$?

156. _____ Each letter of the alphabet is assigned a numerical value equal to its position, so that A = 1, B = 2, C = 3, ..., Z = 26. The value of a word is the sum of the values of its letters. For example, the value of THREE is $20 + 8 + 18 + 5 + 5 = 56$. What integer from 1 to 20, inclusive, when spelled out, has the greatest value?

157. _____ ways Spirit Committee members will be chosen from students nominated in each grade. Two students will be chosen from the five nominated 6th graders. Four students will be chosen from the seven nominated 7th graders. Six students will be chosen from the nine nominated 8th graders. In how many different ways can the committee members be chosen?

158. _____ units² The area of the region bounded by the parabola $y = 4x - x^2$ and the line $y = -5$ can be determined using the formula $A = \frac{2}{3}bh$, where b is the length of the horizontal base and h is the vertical distance from the vertex of the parabola to the base. What is the area of this region, shown shaded?



159. _____ fizz In the country of Fizzle, coins come in denominations of 5, 8 and 11 fizz. What is the greatest integer amount that cannot be paid with a whole number of these coins?

160. _____ inches An 8-inch by 12-inch paper napkin is folded in half three times, with each fold resulting in a smaller rectangle. What is the longest possible diagonal for the final rectangle? Express your answer in simplest radical form.