MATHCOUNTS 7

141. $ _____ Annie has one quarter, two dimes and three nickels. Oliver has two quarters, one dime and one nickel. How much money do Oliver and Annie have, combined?
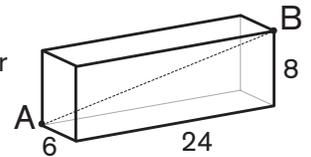
142. _____ years At 22 years old, Clara is the oldest of her parents' eight daughters, all of whom share the same birthday. Each of Clara's younger sisters is exactly two years younger than her next oldest sister. What is the sum of the ages of all eight daughters?

143. _____ % For a school project, Yun records the weather at his house every day for a 20-day period in September. On what percent of the days did it rain? Express your answer to the nearest percent.

Su	M	Tu	W	Th	F	Sa

144. _____ cm What is the distance between point *A* and point *B* in the rectangular prism shown, with length 24 cm, width 6 cm and height 8 cm?

145. _____ hours Michelle charges $45 per hour for tutoring. She is saving up to buy a $14,000 car. How many full hours must she tutor to earn enough money to purchase the car?

146. _____ The mean of 12 scores on a math test was 86.9. Later, 3 more people take the test, and the average of their 3 scores is 90.0. What is the average of all 15 test scores? Express your answer as a decimal to the nearest tenth.

147. _____ burgers A certain burger chain sells, on average, 75 burgers every second. How many burgers are sold each hour? Express your answer in scientific notation to two significant figures.

148. _____ boxes A specialty candy is packaged in a box holding only 1 candy, in a box holding 5 candies or in a box holding 16 candies. The company receives an order for 238 candies. What is the least number of boxes needed to exactly fill this order?

149. _____ $10 bills Gene has $52 in his wallet. He has some $1 bills, some $5 bills, and some $10 bills. If he has 3 times as many $1 as $5 and twice as many $5 as $10 bills, how many $10 bills does he have?

150. _____ cm According to a study in the *European Journal of Clinical Nutrition*, a woman's projected height (PH) in centimeters is related to her hand length (HL) in centimeters by the following formula: PH = 80.400 + 5.122 × HL − 0.195 × age in years. Given that Kiera is 36 years old and that her hand length is 14.96 cm, what is her projected height? Express your answer to the nearest whole number.

Name _____

Grade _____ Teacher _____

Attach steps of solutions on separate sheet of paper to earn full credit

151. _____ % Delilah brought a red ball, a green top and a blue yo-yo to her playdate with Emily and Francesca. Emily brought an orange ball, a red Hula-Hoop and two blue marbles. Francesca has a green ball, a yellow top and a blue jump rope. What percent of the toys brought to the playdate were blue?

152. $ _____ At Adhira's grocery store, green cardamom pods cost $45.99 per pound. Given that there are 16 ounces in a pound, how much will 0.70 ounce of green cardamom pods cost?
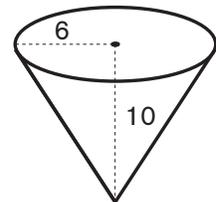
153. $ _____ Novellor Technologies has 96 employees. The number of people filling each position and each position's mean annual salary are shown in the table. Given that the mean annual salary at Novellor is $102,000, what is the annual salary of Novellor's CEO? Express your answer to the nearest dollar.

Job	Number of Employees	Mean Annual Salary
Factory Worker	80	$42,000
Plant Manager	10	$64,500
Sales Rep	5	$51,000
CEO	1	

154. _____ pounds At Bruno's shipping warehouse, any item weighing 5 pounds or less costs $3.50 to ship. For items over 5 pounds, the item costs $3.50 plus $1.25 for each additional pound. If Rachel paid $14.75 to ship a package, how many pounds did it weigh?
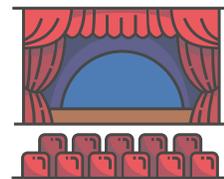
155. _____ mi/h On Monday, Jamal biked 4 miles from home to school at an average speed of 10 mi/h. After school, he noticed that his bike had a flat tire, so he walked home. If he walked at a speed of 3 mi/h, what was his average speed on the trip to school and back home? Express your answer as a decimal to the nearest tenth.

156. _____ cm³ What is the volume of the cone shown here, with height 10 cm and base radius 6 cm? Express your answer in terms of π.

157. _____ minutes It takes 46 seconds to fill a 2-ounce measuring cup with ingredient A and 33 seconds to fill the same measuring cup with ingredient B. What is the absolute difference in the numbers of minutes it takes to fill the measuring cup with ingredients A and B? Express your answer as a decimal to the nearest hundredth.

158. _____ % A theater holds 290 people. If 261 people are in attendance, what percent of the theater is empty?

159. _____ miles Assume that Earth is a perfect sphere with radius 4000 mi. In miles, what is the distance in a straight line from a point on the equator through the planet to the South Pole? Express your answer in simplest radical form.

160. _____ cm Given that there are 2.54 cm in an inch and 5280 feet in a mile, how many centimeters are in a mile? Express your answer to the nearest thousand.