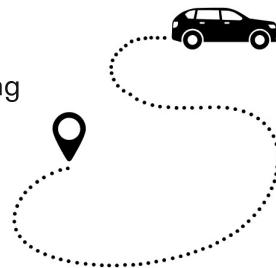# Workout 1

141. _____ calories   A certain brand of almond milk has 30 calories per cup. If there are 8 fluid ounces in a cup, and the carton holds 100 fluid ounces, how many calories are in a full carton of almond milk?

142. _____ digits   What is the total number of digits used when the first 500 positive even integers are written?

143. _____ in²   Two photographs have equal areas of 16 square inches—one is a square measuring 4 inches by 4 inches, and the other is a rectangle measuring 2 inches by 8 inches. Each photograph is surrounded by a wooden frame that is 1 inch wide on all sides. What is the absolute difference between the areas of the two frames?

144. _____ miles   A car can travel from Sprintville to Countdown City in 3 hours, traveling at a constant rate. If it travels at another constant rate that is 10 mi/h faster on the return trip, it can travel back from Countdown City to Sprintville in 20 fewer minutes. How many miles are between Sprintville and Countdown City?

145. _____   Three distinct prime numbers form an arithmetic sequence. If their sum is 111, what is the least possible value of their product?

146. _____   A number is chosen at random from the set of consecutive integers {1, 2, 3, …, 25}. What is the probability that the number chosen is a divisor of 5!? Express your answer as a common fraction.

147. _____   What is the sum of all positive palindromes less than 2025 that are divisible by 99?

148. _____ inches   The average height of a professional basketball player is 78 inches, and there are typically 15 players per team. The average height of a professional baseball player is 74 inches, and there are typically 26 players per team. What is the expected absolute difference, in inches, between the combined heights of the players on a professional basketball team and the combined heights of the players on a professional baseball team?

149. _____ integers   How many positive integers are divisors of 18, but not of 63?

150. _____   The first three terms of a sequence are 4, 7 and 13. Each term after the first is one less than twice the previous term. What is the sixth term in the sequence?