



Workout 3

161. _____ What is the probability of getting exactly 6 correct answers on a 10-question true-false test by randomly guessing? Express your answer as a common fraction.
162. _____ inches Bradlee draws a rectangle of width 160 inches and height 70 inches. Bianca draws a rectangle whose width is 50 inches larger than Bradlee's, and whose area is 50% larger than Bradlee's. What is the height of Bianca's rectangle?
163. _____ A *Pythagorean Triple* is an ordered triple of positive integers (a, b, c) satisfying the equation $a^2 + b^2 = c^2$. If $(x, 28, 53)$, $(13, y, 85)$ and $(z, 20, 29)$ are Pythagorean Triples, what is the greatest prime factor of $x + y + z$?
164. _____ ft² Farmer John owns a circular plot of land with a radius of 300 feet. He then fences off a square region that has vertices on the boundary of the circular plot. How many square feet of land lie inside the circular plot but outside the square region? Express your answer to the nearest thousand.
165. _____ The *odds* of success are a ratio of the form $A:B$, where A is the probability of a successful outcome and B is the probability of an unsuccessful outcome. If the odds of winning the game *Galaxy Quest* are 3:4, what is the probability of losing this game? Express your answer as a decimal to the nearest hundredth.
166. _____ % In what percent of the positive two-digit integers is the tens digit at least five more than the units digit? Express your answer to the nearest tenth.
167. _____ In November, Tiffany proofread books at a rate of 10 pages per hour. She charged \$24 per hour for this service. By January, she was able to proofread an additional 2 pages per hour, so she increased her hourly rate by \$3 per hour. If Tiffany earned x dollars per page proofread in November and y dollars per page in January, what is the ratio of x to y ? Express your answer as a common fraction.
168. _____ pounds Ellie has two dogs, a bulldog and a golden retriever. The bulldog's weight is 60% of the golden retriever's weight. If the golden retriever weighs 28 pounds more than the bulldog, what is the combined weight of Ellie's two dogs?
169. _____ sides If the sum of the measures of the interior angles of a polygon is 1620 degrees, how many sides does the polygon have?
170. _____ pants Tanner has four times as many shirts as pants, and he can use them to make 100 different shirt-and-pants outfits. How many pants does Tanner have?