

Workout 9



241.3

261. units³ A 6-8-10 triangle is revolved about the side of length 10 units. What is the volume of the resulting solid? Express your answer as a decimal to the nearest tenth.

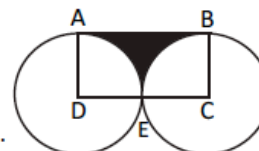
262. 7 students Some students in a gym class are wearing blue jerseys, and the rest are wearing red jerseys. There are exactly 25 ways to pick a team of 3 players that includes at least 1 player wearing each color. How many students are in the class?



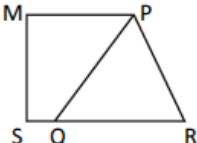
263. 60 % Suppose that the price of game tickets has gone up 4% every year for the past 25 years. What percent of today's game ticket price is the price of a game ticket 13 years ago? Express your answer to the nearest whole number.

264. .62 The three sides of a right triangle form a geometric progression. What is the ratio of the length of the shortest side to the length of the hypotenuse? Express your answer as a decimal to the nearest hundredth.

265. 39 units² The radii of circles C and D are each 3 units long. The two circles are tangent at point E. Side AB of rectangle ABCD is tangent to circle D at point A and tangent to circle C at point B. What is the area of the shaded region? Express your answer as a decimal to the nearest tenth.



266. 157 What is the smallest positive integer that is greater than 100 and leaves a remainder of 1 when divided by 3, a remainder of 2 when divided by 5 and a remainder of 3 when divided by 7?

267. 2.5 units  Trapezoid MPRS has \overline{MP} and \overline{RS} as bases and $\overline{MS} \perp \overline{SR}$. Additionally, $MP = MS = 2$ units, and $RS = 3$ units. If point Q lies on \overline{SR} such that \overline{PQ} bisects the area of trapezoid MPRS, what is the length of \overline{PQ} ? Express your answer as a decimal to the nearest tenth.

268. 31 values The mean of a set of five different positive integers is 21. How many values are possible for the median of this set of positive integers?

269. 45 hours One candle burns entirely in 6 hours, and another burns entirely in 9 hours. The candles were lit at the same time, and they were the same height when lit. After how many hours will one candle be half the height of the other? Express your answer as a decimal to the nearest tenth.



270. 32 For years, Mrs. Meany has had a tradition of giving her students a list of books from which they had to choose two to read during winter break. This year, Mrs. Meany added n book(s) to the list. If there are now 99 more ways that two books can be selected, what is the sum of all possible values of n ?