

2009 SCSU MATH CONTEST
7th and 8th Grade Test

1. A nickel is worth \$0.05 and is 0.075 inches thick. If a stack of nickels is as tall as Bob, whose height is $5\frac{3}{4}$ feet, what is the value of this stack?
A. \$46.00 B. \$45.00 C. \$34.50 D. \$0.26 E. none of these
2. Andre is a butcher and president of a committee, which also includes a grocer, a baker, and a candlestick maker. All are sitting around a square table, one on each side of the table. Andre sits on Charmin's left, Barton sits at the grocer's right, and Duclos, who faces Charmin, is not the baker. Who sits across the table from the butcher?
A. the baker B. Duclos C. the grocer D. the candlestick maker E. Charmin
3. In a chemistry course, you learn that a substance's density is found by dividing its mass by its volume. If a 300 g block of wood measures 70 mm by 50 mm by 30 mm, find the density of the wood in g/cm³. Round your answer to the nearest hundredth.
A. 0.03 g/cm³ B. 0.29 g/cm³ C. 0.35 g/cm³ D. 2.86 g/cm³ E. 350.00 g/cm³
4. A building casts a shadow 26 m long. At the same time, the shadow cast by a 63 cm tall pole is 60 cm long. Find the height of the building.
A. 145.4 m B. 27.3 m C. 25.8 m D. 24.8 m E. 23.3 m
5. One interior angle of an equilateral triangle measures 60° and one interior angle of a square measures 90°. Find the measure of one interior angle of a heptagon, rounded to the nearest tenth degree.
A. 51.4° B. 102.8° C. 120.0° D. 128.6° E. none of these
6. The King Center is dedicated to the mission of Dr. Martin Luther King Jr. Approximately 650,000 people visit the center each year. It is open from 9 a.m. – 5 p.m. every day of the week. On the average, how many people entered The King Center each hour in 2007?
A. 31 B. 74 C. 125 D. 223 E. 1781
7. Find the number that is exactly three-fifths of the way from 14 to 69 on the number line.
A. 47 B. 36 C. 33 D. 22 E. none of these
8. A box contains fewer than 50 marbles. Each marble is either red or white. The probability of randomly choosing a red marble is $\frac{2}{5}$. What is the largest number of white marbles that could be in the box?
A. 18 B. 27 C. 31 D. 45 E. 49
9. The ratio of males to females at a meeting is 7:4. There are 140 females at the meeting. How many people are at the meeting?
A. 245 B. 372 C. 385 D. 770 E. none of these