

CLEP College Mathematics Exam Secrets Study Guide

Section: CLEP College Math Exams • Total Questions: 10 • Format: Verified Q&A

1. Andrew selects 6 distinct numbers from 1—49 for a lottery ticket. How many different tickets are possible (order does not matter)?

- (A) 1,176,720
 - (B) 7,059,052
 - (C) 13,983,816
 - (D) 49,000
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2. In a Calculus class of 50 students, the highest exam score was 100, the mean was 72, the median was 71, and the mode was 75. Which of the following statements must be true?

- (A) The lowest score was 70
 - (B) Twenty students had a score of 72 or greater
 - (C) The most frequently occurring score was 75
 - (D) More students had a score of 72 than 71
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3. A survey of 30 people finds that 16 are teachers, 12 own motorcycles, and 8 are neither. How many own motorcycles?

- (A) 12
 - (B) 14
 - (C) 16
 - (D) 18
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4. In a triangle with side lengths 7, 24, and 25, what is $\sin$ of the smallest angle?

- (A) $7/25$
 - (B) $24/25$
 - (C) $25/24$
 - (D) $24/7$
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5. In the xy -plane, which of the following are the coordinates of the point of intersection for the system of equations given above?

- (A) $(1,8)$
 - (B) $(3\ln 2,8)$
 - (C) $(8,8)$
 - (D) $(8\ln 2,8)$
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6. The letters A, B, C, and D are to be used in forming four-letter code words. Repetition of letters is not allowed. How many distinct code words can be formed?

- (A) 12
 - (B) 16
 - (C) 24
 - (D) 256
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7. In a small college, professors teach classes of 50 students and lecturers teach classes of 25 students. There are twice as many professors as lecturers. The total number of professors, lecturers, and students is 1280. How many professors were teaching?

- (A) 10
 - (B) 15
 - (C) 20
 - (D) 25
 - (E) 30
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8. An office building was sold in 2018 for P dollars, resold in 2019 for 20% more, then decreased by $x\%$ in 2020 and sold for P again. What is x ?

- (A) 10
 - (B) 20
 - (C) 25
 - (D) 30
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9. Let A and B be disjoint sets, and let C be such that $C \cap A$ and $C \cap B$ are both nonempty. Which of the following statements is true?

- (A) $A \cap C$ and $B \cap C$ are disjoint
 - (B) $A \cap C$ and $B \cap C$ are disjoint
 - (C) A and $B \cap C$ are disjoint
 - (D) None of the above
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10. Let $g(x) = f(-x)$, where $f(x) = (x - 3)^2 + 1$. What is the value of $g(-3)$?

- (A) 4
- (B) 10
- (C) 16
- (D) 20