

CLEP College Algebra Exam Questions

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

1. Which of the following is equivalent to $(a^6 \cdot b^{12}) - (a^3)$ where a and b are positive constants?

- (A) $a^2b^4 - a$
 - (B) $a^3b^2 - a$
 - (C) $a^2b^4 + 1$
 - (D) $a^3b^2 - 1$
 - (E) a^3b^2
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2. The parabola $y = 1 - x^2$ is shown in the xy -plane above. The graph of which of the following equations has the same x -intercepts as the parabola?

- (A) $y = |x - 1|$
 - (B) $y = |x|$
 - (C) $y = |x| - 1$
 - (D) $y = |x| + 1$
 - (E) $y = |x + 1|$
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3. If b and c are constants and $x^2 + bx + c = (x + 3)(x - 5)$ for all values of x , what is the value of b ?

- (A) -5
 - (B) -2
 - (C) 3
 - (D) 8
 - (E) 15
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4. What is the domain of the function $f(x) = \frac{(x + 2)}{(|x| - 1)}$?

- (A) $x \neq -2$
 - (B) $x > -2, x \neq 1$
 - (C) $x \neq -2, x \neq -1$
 - (D) $x \neq -2, x \neq -1, x \neq 1$
 - (E) $x > -2, x \neq -1, x \neq 1$
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5. Which of the following is a factor of $36x^2 - 16y^2$?

- (A) $4x + 6y$
 - (B) $6x + 4y$
 - (C) $8x - 6y$
 - (D) $9x - 4y$
 - (E) $18x - 8y$
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6. On a certain day, there were 104 pennies in jar A and 20 pennies in jar B. On each subsequent day, 3 pennies were removed from jar A and 4 pennies were added to jar B until the jars had the same number of pennies. On how many days were pennies removed from jar A?

- (A) 8
 - (B) 10
 - (C) 12
 - (D) 14
 - (E) 16
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7. If $z = 5 + 3i$, which of the following is the complete conjugate of z ?

- (A) $-5 - 3i$
 - (B) $-5 + 3i$
 - (C) $-3 + 5i$
 - (D) $3 + 5i$
 - (E) $5 - 3i$
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8. If $a = 2 + 3i$ and $b = 3 - 2i$ then $a \cdot b$ is equal to which of the following?

- (B) $-1 + 5i$
 - (C) $1 + i$
 - (D) $5 + i$
 - (E) $5 + 5i$
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9. If c is a constant and the equation $x^2 - 4x + c = 0$ has no real roots, which of the following could be the value of c ?

- (A) -6
 - (B) -4
 - (C) 2
 - (D) 4
 - (E) 6
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10. The shaded region in the figure above represents the solution set of which system of inequalities?

- (A) $-2 \leq x \leq 2$; $0 \leq y \leq x + 2$
- (B) $0 \leq x \leq 2$; $0 \leq y \leq x + 2$
- (C) $0 \leq x \leq 2$; $2 \leq y \leq x + 2$
- (D) $0 \leq y \leq 2$; $0 \leq x \leq y + 2$
- (E) $0 \leq x$; $0 \leq y \leq x + 2$