CLEP

College-Algebra

CLEP College Algebra Exam

For More Information – Visit link below:

https://www.examsboost.com/

Product Version

✓ Up to Date products, reliable and verified.
✓ Questions and Answers in PDF Format.

Latest Version: 6.0

Question: 1

Which is equivalent to √18-4√8+2√50?

A. 0
B. 5√2
C. -5√2
D. 3√2
E. -√60

Answer: B

Explanation:
√18-4√/8+250√9.2-4√4.2+2√25.2 or 3√2-4.2√2+2.5√2= = 3√2-8√2+10√2 or 5√2

Question: 2

Given: f(x) = 2x-1 and g(x) = x²+3 What is the value of g(f(-1))?

A. 3
B. -6
C. 12
D. 4
E. -4

Answer:

Explanation:
To find the value of g(f(-1)), first find f(-1), which equals 2(-1) - 1 or -3.
Next, place -3 into the g function or find g(-3): g(-3)=(-3)2+3 or 9+3=12.

Question: 3

Which are the zeroes for a 3x + 2?

A. -2, -1, 1
B. -1,1, 2
C. C. -2, 1
D. -1,2
E. -2,-1

Explanation:
To find the zeroes of ³-3x+2, first use the rational root theorem that states that a rational root of the polynomial must be any factor of the last term, 2, divided by any rational factor of the first term's coefficient, 1. In this case, that would be (+2 or ±1)/+1 or (+2 or 1). These are the only four possible rational roots of this polynomial. Each of these values is then substituted for x in the polynomial. The values that produce "zero" for the polynomial are "zeroes" of the polynomial.

$f(1) = (1)^3 - 3 (1)+2=0$

$f(-1)=(-1)-3(-1)+2=4$

$f(2) = (2)3-3 (2)+2=4$

$f(-2)=(-2)-3(-2)+2=0$

1 and -2 are the only rational roots of this polynomial. Note: One of these must have a multiplicity of two- that is, a double zero. Why? Since the polynomial is a cubic, there are three zeroes, and, since imaginary zeroes must come in pairs, the third zero must be real.

Question: 4

Given: loga = 0.30 and logb = 0.47 Which of the following has a value of 0.77?

A. log(a + b)
B. Ob. (loga) (log b)
C. log ab
D. blog a
E. a logb

Explanation:
Since loga = 0.30 and logb = 0.47, the problem is asking for the log of what number = 0.77 or the sum of log a and log b. log a + log b = log (a-b.

Question: 5

Which is the value of x in 82+1 = 42-1?

A. -5
B. -1
C. 1
D. 3
E. 5

Explanation:

To solve for x in $8^{2+1} = 4^{2-1}$, first recognize 8 and 4 can both be written with a base 2 - that is, $8 = 2^3$ and $4 = 2^2$. Now, re-write using the base 2 notation:

$8^{2+1}=4^{2-1}$ or $(2^3)^{2+1} = (2^2)^{2-1}$, which equals $2^{3+3} = 2^{4-2}$ since $(n) = n^{ab}$, where n is any base. In $2^{3x+3}=2^{4x-2}$, since both have equal bases, their exponents must also be equal.

$3x+3=4x-2$ or $x = 5$

Question: 6

What is the solution set for x: $æ^2+3x+2> 0$?

A. x > -1
B. x < -2
C. x>-1 or x < -2
D. x <- 1 and x>-2
E. x>-2

Answer: C

Explanation:
When working with quadratic inequalities, it is first necessary to factor the quadratic. $2+3x+2>0$ becomes $(x + 2) (x + 1) > 0$. A product of two numbers can only be positive when the factors are either both positive or both negative.

For both factors to be positive: $x + 2>0$ AND $x+1>0$. That is, x>-2 AND x>-1. For both of these conditions to be met, x must be greater than - 1.

For both factors to be negative: $x+2<0$ AND $x+1 <0$. That is, x<-2 AND x < -1. For both of these conditions to be met, x must be less than -2.

The solution set is, therefore, x> -1 OR x<-2.

Question: 7

If $(e^2 z) = 3$, then what does e equal?

A. 6
B. 9
C. 18
D. 27
E. 81

Answer: D

Explanation:
Given (e) 3. Since $(a'') a'' = = e^6$ can be re-written as $(e^2)^3$ or 3^3, which equals 27.

Question: 8

Which of the following is the equation for the axis of symmetry for 2x²-6x+5=y?

A. x=-6
B. x=-3
C. C. x =
D. e. x

Answer: D

Explanation:
The equation for the axis of symmetry for a quadratic, ax2 + bx + c = y, is x = 2x²-6x+5=y, a = 2, b = -6 and c = 5. Therefore, the axis of symmetry isz b 2a In 6 2(2) Orx= =

Question: 9

A two digit number, whose sum of digits is ten, will be 36 less than the original number when the digits are reversed. What is the original number?

A. 28
B. 37
C. 46
D. 64
E. 73

Answer: E

Explanation:
Lett = the ten's digit number and u = the unit's digit number.
(1) Sum of the digits is 10: t + u = 10
The value of the original number can be found by 10t+ u
The value of the reversed digits number can be found by 10u + t
(2) The original number minus the reversed number is 36:
(10t+u) (10u+t) = 36 or 9t - 9u = 36.
Divide both sides of the equation by 9 to obtain t - u = 4.
Taking t + u = 10 from (1) above, add both equations to obtain 2t+ 0 = 14 or t = 7. That is, the ten's digit is 7.
The unit's digit must be 3 (their sum is 10). Therefore, the original number is 73.

Question: 10

What is the solution set for 2√ =æ-8?

A. x 16 and x=4
B. x 16
C. x = 4
D. x 16 and x = 64

E. x=64

$$\boxed{\textbf{Answer: B}}$$

Explanation:
Square both sides of the equation 2-8 to obtain 4 2 16x + 64 or 0 = x^2 - 20x +64. Factor the quadratic: 0 = (x-4) (-16), x = 4 or x=16.
You MUST check both results.
x=4:2√4=4-8 yields 4 = -4, which is untrue.
Therefore, x = 4 is not a viable solution. This is called an "extraneous" solution.
x=16:21616-8 or 8 = 8, which is true.
Therefore, x = 16 is correct.

Thank You for Trying Our Product

For More Information – Visit link below:
https://www.examsboost.com/

15 USD Discount Coupon Code:
G74JA8UF

FEATURES

- ✓ **90 Days Free Updates**
- ✓ **Money Back Pass Guarantee**
- ✓ **Instant Download or Email Attachment**
- ✓ **24/7 Live Chat Support**
- ✓ **PDF file could be used at any Platform**
- ✓ **50,000 Happy Customer**