

Latest Version: 6.0

Question: 1

For a quadratic equation, which of the following is FALSE?

- A. If the discriminant is negative, there are no real solutions
- B. If the discriminant is zero, there is only one solution
- C. If the discriminant is negative there are two different real solutions
- D. If the discriminant is positive there are two different real solutions

Answer: C

Question: 2

The natural logarithm of x is:

- A. the inverse function of $\exp(x)$
- B. $\log(e)$
- C. always greater than x , for $x > 0$
- D. 46

Answer: A

Question: 3

When a number is written with a fraction as an exponent, such as $a^{p/q}$, which of the following is the correct computation?

- A. Take the square-root of 75 and raise it to the 5th power
- B. Divide 75 by 2, then raise it to the 5th power
- C. Multiply 75 by 2.5
- D. Square 75, then take the fifth root of it

Answer: A

Question: 4

You invest \$2m in a bank savings account with a constant interest rate of 5% p.a. What is the value of the investment in 2 years time if interest is compounded quarterly?

- A. \$2,208,972
- B. \$2,210,342
- C. \$2,205,000
- D. None of them

Answer: A

Question: 5

Solve the simultaneous linear equations: $x + 2y - 2 = 0$ and $y - 3x = 8$

- A. $x = 1, y = 0.5$
- B. $x = -2, y = 2$
- C. $x = 2, y = 0$
- D. None of the above

Answer: B