Assessment

Lesson-15

Question 1

The equation $x^2 = 9$ has

A. 1 real solution

B. 1 imaginary solution

C. 2 imaginary solutions

D. 2 real solutions

Question 2

The equation $x^2 - 4x + 4 = 0$ has

A. 1 real solution

B. 2 real solutions

C. 2 imaginary solutions

D. 1 imaginary solution

Question 3

If $ax^2+bx+c=0$, then which of the following formulas correctly states the possible value of x?

A. $-b \pm \frac{\sqrt{b^2-4ac}}{2a}$

B. $\frac{-b \pm \sqrt{b^2+4ac}}{2a}$

C. $\frac{-b \pm \sqrt{b^2-4ac}}{2a}$

D. $\frac{b \pm \sqrt{b^2-4ac}}{2a}$

Question 4

When will a quadratic equation have two different complex roots?

A. When the discriminant is positive

B. When the discriminant is negative

C. When the discriminant is zero

D. Will never have complex number roots

Question 5

Use the quadratic formula to solve the following equation

$2x^2 = -10x - 7$

A. $\frac{-10 \pm \sqrt{11}}{2}$

B. $\frac{-5 \pm \sqrt{39}}{2}$

C. $\frac{-5 \pm \sqrt{11}}{4}$

D. $\frac{-5 \pm \sqrt{11}}{2}$

Question 6

Use the quadratic formula to solve the following equation

$x^2 + x + 4 = 0$

A. $x = \frac{1 \pm i\sqrt{15}}{2}$

B. $x = \frac{1 \pm \sqrt{15}}{2}$

C. $x = \frac{-1 \pm i\sqrt{15}}{2}$

D. $x = \frac{-1 \pm \sqrt{15}}{2}$

Question 7

Use the discriminant to determine the type of the solution for
$x^2 + 8x + 16 = 0$

A. 1 rational solution

B. 2 complex solutions

C. 2 irrational solutions

D. 2 rational solutions

Question 8

Find the discriminant value for
$x^2 + 10x + 25 = 0$

A. -200

B. 200

C. 100

D. 0

Question 9

Use the quadratic formula to solve this quadratic equation:

$x^2 = 9 - 4x$

A. $x = -1 \pm \sqrt{13}$

B. $x = -2 \pm 2\sqrt{13}$

C. $x = -2 \pm \sqrt{13}$

D. $x = 2 + \sqrt{13}$

Question 10

Use the quadratic formula to solve this quadratic equation.

$x^2 - 12 = x$

A. $\{-3, 4\}$

B. $\{1, 12\}$

C. $\{3, 4\}$

D. $\{-3, -4\}$