

PREVIEW

CLOSE

Quiz: Complex Numbers and Discriminants

Question 1a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 91330)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2

Question: Which of the following statements *must* be true of an equation before you can use the quadratic formula to find the solutions?

Check all that apply.

Correct Answers:

	Choice
*A.	There can be no term whose degree is higher than 2.
*B.	The coefficient of the x^2 -term can't be 0.
C.	The coefficient of the x -term must be positive.
*D.	One side of the equation must be 0.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: There can be no term whose degree is higher than 2, The coefficient of the x^2 -term can't be 0, and One side of the equation must be 0.

Question 1b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297698)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2

Question: Which of the following statements *must* be true of an equation before you can use the quadratic formula to find the solutions?

Check all that apply.

Correct Answers:

	Choice
*A.	There can be no term whose degree is higher than 2.
*B.	The coefficient of the x^2 -term can't be 0.
C.	The coefficient of the x -term must be positive.
*D.	One side of the equation must be 0.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: There can be no term whose degree is higher than 2, The coefficient of the x^2 -term can't be 0, and One side of the equation must be 0.

Question 1c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297699)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following statements *must* be true of an equation before you can use the quadratic formula to find the solutions?

Check all that apply.

Correct Answers:

	Choice
*A.	There can be no term whose degree is higher than 2.
*B.	The coefficient of the x^2 -term can't be 0.
C.	The coefficient of the x-term must be positive.
*D.	One side of the equation must be 0.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: There can be no term whose degree is higher than 2, The coefficient of the x^2 -term can't be 0, and One side of the equation must be 0.

Question 2a of 15 (2 Using The Quadratic Formula to Solve Quadratic Equations 91331)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: After being rearranged and simplified, which of the following equations could be solved using the quadratic formula?

Check all that apply.

Correct Answers:

	Choice
A.	$2x^2 - 3x + 10 = 2x^2 + 21$
*B.	$x^2 - 6x - 7 = 2x$
*C.	$5x^2 - 3x + 10 = 2x^2$
D.	$5x^3 + 2x - 4 = 2x^2$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $x^2 - 6x - 7 = 2x$ and $5x^2 - 3x + 10 = 2x^2$.

Question 2b of 15 (2 Using The Quadratic Formula to Solve Quadratic Equations 297700)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: After being rearranged and simplified, which of the following equations could be solved using the quadratic formula?

Check all that apply.

Correct Answers:

	Choice
<input checked="" type="checkbox"/>	A. $2x^2 - 3x + 10 = 2x + 21$
<input type="checkbox"/>	B. $2x^2 - 6x - 7 = 2x^2$
<input type="checkbox"/>	C. $5x^3 - 3x + 10 = 2x^2$
<input checked="" type="checkbox"/>	D. $5x^2 + 2x - 4 = 2x^2$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $2x^2 - 3x + 10 = 2x + 21$ and $5x^2 + 2x - 4 = 2x^2$.

Question 2c of 15 (2 Using The Quadratic Formula to Solve Quadratic Equations 297701)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: After being rearranged and simplified, which of the following equations could be solved using the quadratic formula?

Check all that apply.

Correct Answers:

	Choice
<input checked="" type="checkbox"/>	A. $5x^2 - 3x + 10 = 2x^2 + 21$
<input checked="" type="checkbox"/>	B. $x^2 - 6x - 7 = 2$
<input type="checkbox"/>	C. $5x^2 - 3x + 10 = 5x^2$
<input type="checkbox"/>	D. $5x^3 + 2x - 4 = 2x^2$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $5x^2 - 3x + 10 = 2x^2 + 21$ and $x^2 - 6x - 7 = 2$.

Question 3a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91332)

Maximum Attempts:

1

Question Type:

Multiple Response

Maximum Score:

2

Question:

Which of the following are solutions to the equation below?

Check all that apply.

$$3x^2 - 5x + 1 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{5 \pm \sqrt{13}}{6}$
*B.	$x = \frac{5 + \sqrt{13}}{6}$
C.	$x = \frac{5 \pm \sqrt{37}}{6}$
D.	$x = \frac{-5 \pm \sqrt{13}}{6}$
E.	$x = \frac{-5 + \sqrt{13}}{6}$
F.	$x = \frac{5 + \sqrt{37}}{6}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x =$ and $x =$

Question 3b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297702)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$2x^2 - 5x + 1 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{5 - \sqrt{17}}{4}$
*B.	$x = \frac{5 + \sqrt{17}}{4}$
C.	$x = \frac{-5 + \sqrt{17}}{4}$
D.	$x = \frac{-5 - \sqrt{17}}{4}$
E.	$x = \frac{5 + \sqrt{20}}{4}$
F.	$x = \frac{5 - \sqrt{20}}{4}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{5 - \sqrt{17}}{4}$ and $x = \frac{5 + \sqrt{17}}{4}$.

Question 3c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297703)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$1x^2 - 3x + 1 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{3 + \sqrt{5}}{2}$
*B.	$x = \frac{3 + \sqrt{5}}{2}$
C.	$x = \frac{-7 + \sqrt{5}}{2}$
D.	$x = \frac{-3 - \sqrt{5}}{2}$
E.	$x = \frac{3 + \sqrt{3}}{2}$
F.	$x = \frac{3 + \sqrt{13}}{2}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{3 + \sqrt{5}}{2}$ and $x = \frac{-7 + \sqrt{5}}{2}$.

Question 4a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91333)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$2x^2 + 3x - 5 = 0$$

Correct Answers:

	Choice
A.	$x =$
*B.	$x = 1$
C.	$x = -1$
D.	$x =$
*E.	$x = -$
F.	$x =$

Attempt	Incorrect Feedback
1st	

	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $x = 1$ and $x = -\frac{3}{5}$.

Question 4b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297704)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2
Question: Which of the following are solutions to the equation below?

Check all that apply.

$$5x^2 + 2x - 3 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{3}{5}$
B.	$x = 1$
*C.	$x = -1$
D.	$x = \frac{-\sqrt{4}}{5}$
E.	$x = \frac{-\sqrt{14}}{5}$
F.	$x = \frac{3 - 2\sqrt{2}}{5}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x =$ and $x = -1$.

Question 4c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297705)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2
Question: Which of the following are solutions to the equation below?

Check all that apply.

$$3x^2 + 7x + 4 = 0$$

Correct Answers:

	Choice
A.	$x = \frac{7 \pm \sqrt{49}}{6}$
B.	$x = 1$
*C.	$x = -1$
*D.	$x = -\frac{4}{5}$
E.	$x = \frac{-7 \pm \sqrt{49}}{6}$
F.	$x = \frac{7 \pm \sqrt{49}}{6}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = -1$ and $x = -\frac{4}{5}$.

Question 5a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91334)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 - 3x - 4 = 0$$

Correct Answers:

	Choice
A.	$x = \frac{3 \pm \sqrt{-7}}{2}$
B.	$x = -4$
C.	$x =$
*D.	$x = 4$
E.	$x =$
*F.	$x = -1$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = 4$ and $x = -1$.

Question 5b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297706)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 + 3x - 4 = 0$$

Correct Answers:

	Choice
A.	$x = \frac{-3 + \sqrt{17}}{2}$
*B.	$x = -4$
C.	$x = \frac{-3 - \sqrt{17}}{2}$
D.	$x = 4$
*E.	$x = 1$
F.	$x = -1$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = -4$ and $x = 1$.

Question 5c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297707)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 - 4x + 3 = 0$$

Correct Answers:

	Choice
A.	$x = 2 +$
*B.	$x = 3$
C.	$x = 2 -$
D.	$x = -3$
*E.	$x = 1$
F.	$x = -2 +$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = 3$ and $x = 1$.

Question 6a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91335)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2
Question: Which of the following are solutions to the equation below?
Check all that apply.
 $x^2 - 5x + 1 = 0$

Correct Answers:

	Choice
A.	$x = \frac{5 + \sqrt{25}}{2}$
B.	$x = \frac{1 + \sqrt{21}}{2}$
*C.	$x = \frac{5 + \sqrt{21}}{2}$
D.	$x = \frac{-1 + \sqrt{21}}{2}$
*E.	$x = \frac{5 - \sqrt{21}}{2}$
F.	$x = \frac{5 - \sqrt{25}}{2}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x =$ and $x =$.

Question 6b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297708)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2
Question: Which of the following are solutions to the equation below?
Check all that apply.
 $x^2 - 5x - 1 = 0$

Correct Answers:

	Choice
*A.	$x = \frac{5 + \sqrt{29}}{2}$
B.	$x = \frac{-1 - \sqrt{21}}{2}$
C.	$x = \frac{7 + \sqrt{17}}{2}$
D.	$x = \frac{-1 - \sqrt{21}}{2}$
E.	$x = \frac{5 - \sqrt{29}}{2}$
*F.	$x = \frac{5 - \sqrt{29}}{2}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{5 + \sqrt{29}}{2}$ and $x = \frac{5 - \sqrt{29}}{2}$.

Question 6c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297709)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 + x - 5 = 0$$

Correct Answers:

	Choice
A.	$x =$
*B.	$x =$
C.	$x =$
*D.	$x =$
E.	$x =$
F.	$x =$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	<p>The correct answers are: $x = \frac{-1 - \sqrt{21}}{2}$ and $x = \frac{-1 + \sqrt{21}}{2}$.</p>

Question 7a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91336)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$4x^2 + 3x + 2 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{-3 + \sqrt{-23}}{8}$
B.	$x = \frac{3 + \sqrt{23}}{8}$
*C.	$x = \frac{3 - \sqrt{23}}{8}$
D.	$x = \frac{-3 - \sqrt{23}}{8}$
E.	$x = \frac{3 + \sqrt{23}}{8}$
F.	$x =$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	<p>The correct answers are: $x = \frac{-3 + \sqrt{23}}{8}$ and $x = \frac{-3 - \sqrt{23}}{8}$.</p>

Question 7b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297710)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$5x^2 + 3x + 2 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{-3 + \sqrt{-31}}{10}$
B.	$x = \frac{-3 - \sqrt{31}}{10}$
*C.	$x = \frac{-3 - \sqrt{-31}}{10}$
D.	$x = \frac{2}{5}$
E.	$x = -1$
F.	$x = \frac{-3 + \sqrt{31}}{10}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{-3 \pm \sqrt{-31}}{10}$ and $x = \frac{-3 \pm \sqrt{31}}{10}$.

Question 7c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297711)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$4x^2 + 3x + 3 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{d + \sqrt{b^2 - 4ad}}{c}$
B.	$x = \frac{d + \sqrt{b^2}}{c}$
*C.	$x = \frac{d + \sqrt{b^2 - 4ad}}{c}$
D.	$x = \frac{d + \sqrt{b^2}}{c}$
E.	$x = \frac{d + \sqrt{b^2}}{c}$
F.	$x = \frac{d + \sqrt{b^2}}{c}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{-3 - \sqrt{-33}}{8}$ and $x = \frac{-3 + \sqrt{-33}}{8}$.

Question 8a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 91337)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$2x^2 - x + 5 = 0$$

Correct Answers:

	Choice
A.	$x =$
*B.	$x =$
C.	$x =$
D.	$x =$
E.	$x =$
*F.	$x =$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $x = \frac{-1 + \sqrt{-59}}{4}$ and $x = \frac{-1 - \sqrt{-59}}{4}$.

Question 8b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297712)

Maximum Attempts: 1

Question Type: Multiple Response

Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$3x^2 - x + 5 = 0$$

Correct Answers:

	Choice
A.	$x = \frac{-1 + \sqrt{65}}{6}$
*B.	$x = \frac{-1 + \sqrt{-59}}{6}$
C.	$x = \frac{-1 - \sqrt{65}}{6}$
D.	$x = \frac{\sqrt{61}}{6}$
E.	$x = \frac{\sqrt{61}}{6}$
*F.	$x = \frac{-1 - \sqrt{-59}}{6}$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $x =$ and $x =$.

Question 8c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297713)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2
Question: Which of the following are solutions to the equation below?

Check all that apply.

$$4x^2 - x + 5 = 0$$

Correct Answers:

	Choice
A.	$x = \frac{-1 + \sqrt{79}}{8}$
*B.	$x = \frac{-1 - \sqrt{-79}}{8}$
C.	$x = \frac{-1 + \sqrt{79}}{8}$
D.	$x = \frac{-1 + \sqrt{81}}{8}$
E.	$x = \frac{-1 - \sqrt{81}}{8}$
*F.	$x = \frac{-1 - \sqrt{-79}}{8}$

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answers are: $x = \frac{-1 + \sqrt{79}}{8}$ and $x = \frac{-1 - \sqrt{79}}{8}$.

Question 9a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 121087)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: imaginary
Question: The square root of a negative value is called an _____ or complex number.

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: imaginary.

Question 9b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297714)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: complex

Question: The square root of a negative value is called an imaginary or _____ number.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: complex.

Question 9c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297715)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: negative, negativ

Question: The square root of a _____ value is called an imaginary or complex number.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: negative.

Question 10a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 121088)

Maximum Attempts: 1

Question Type: Text Fill In Blank

Maximum Score: 2

Is Case Sensitive: false

Correct Answer: discriminant, discriminent

Question: The _____ is the name of the number under the radical symbol in the quadratic formula.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: discriminant.

Question 10b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297716)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** discriminant, discriminant**Question:** The _____ is the name of the number under the radical symbol in the quadratic formula.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: discriminant.

Question 10c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297717)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** discriminant, discriminant**Question:** The _____ is the name of the number under the radical symbol in the quadratic formula.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: discriminant.

Question 11a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 121089)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** subtract**Question:** If the right-hand side of a quadratic equation does not equal zero, you need to _____ the number or expression on the right-hand side from both sides before you can use the quadratic formula.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: subtract.

Question 11b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297718)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** subtract**Question:** If the right-hand side of a quadratic equation does not equal zero, you need to _____ the number or expression on the right-hand side from both sides before you can use the quadratic formula.

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: subtract.

Question 11c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297719)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** subtract**Question:** If the right-hand side of a quadratic equation does not equal zero, you need to _____ the number or expression on the right-hand side from both sides before you can use the quadratic formula.

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: subtract.

Question 12a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 121090)**Maximum Attempts:** 1**Question Type:** Numeric Fill In Blank**Maximum Score:** 2**Correct Answer:** 2**Question:** The quadratic formula cannot be used to solve an equation if a term in the equation has a degree higher than _____.

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: 2.

Question 12b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297720)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2

Question: The quadratic formula cannot be used to solve an equation if a term in the equation has a degree higher than _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: 2.

Question 12c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297721)

Maximum Attempts: 1
Question Type: Numeric Fill In Blank
Maximum Score: 2
Correct Answer: 2

Question: The quadratic formula cannot be used to solve an equation if a term in the equation has a degree higher than _____.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: 2.

Question 13a of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 121091)

Maximum Attempts: 1
Question Type: Text Fill In Blank
Maximum Score: 2
Is Case Sensitive: false
Correct Answer: real

Question: You can determine by the discriminant whether the solutions to the equation are _____ or complex numbers.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: real.

Question 13b of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297722)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** complex, imaginary, imaginery**Question:** You can determine by the discriminant whether the solutions to the equation are real or _____ numbers.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: complex.

Question 13c of 15 (1 Using The Quadratic Formula to Solve Quadratic Equations 297723)**Maximum Attempts:** 1**Question Type:** Text Fill In Blank**Maximum Score:** 2**Is Case Sensitive:** false**Correct Answer:** real**Question:** You can determine by the discriminant whether the solutions to the equation are _____ or complex numbers.

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answer is: real.

Question 14a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 121092)**Maximum Attempts:** 1**Question Type:** Multiple Choice**Maximum Score:** 2**Question:** Check the solutions to the equation below.

$$x^2 + x + 2$$

	Choice	Feedback
A.	$x = \frac{2 + \sqrt{3}}{2}$ and $x = \frac{-2 - \sqrt{-5}}{2}$	
B.	$x = 2$ and $x = 1$	
*C.	$x = \frac{1 + \sqrt{7}}{2}$ and $x = \frac{-1 - \sqrt{-7}}{2}$	
D.	$x = 8$ and $x = 4$	

Global Incorrect Feedback
The correct answer is: $x = \frac{-1 + \sqrt{-7}}{2}$ and $x = \frac{-1 - \sqrt{-7}}{2}$.

Question 14b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297724)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: Check the solutions to the equation below.

$$x^2 + x + 1$$

	Choice	Feedback
*A.	$x = \frac{1 + \sqrt{5}}{2}$ and $x = \frac{1 - \sqrt{5}}{2}$	
B.	$x = 2$ and $x = 1$	
C.	$x = \frac{-1 + \sqrt{-7}}{2}$ and $x = \frac{1 + \sqrt{7}}{2}$	
D.	$x = 8$ and $x = 4$	

Global Incorrect Feedback
The correct answer is: $x =$ and $x =$.

Question 14c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297725)

Maximum Attempts: 1
Question Type: Multiple Choice
Maximum Score: 2
Question: Check the solutions to the equation below.

$$x^2 + 3x + 4$$

	Choice	Feedback
A.	$x = \frac{1 + \sqrt{13}}{2}$ and $x = \frac{1 - \sqrt{13}}{2}$	
B.	$x = 2$ and $x = 1$	
*C.	$x = \frac{-3 + \sqrt{-7}}{2}$ and $x = \frac{-3 - \sqrt{-7}}{2}$	
D.	$x = 3$ and $x = 2$	

Global Incorrect Feedback
The correct answer is: $x = \frac{3 + \sqrt{17}}{2}$ and $x = \frac{3 - \sqrt{17}}{2}$.

Question 15a of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 133820)

Maximum Attempts: 1
 Question Type: Multiple Response
 Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 + x + 5 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{-1 + \sqrt{19}}{2}$
*B.	$x = \frac{-1 - \sqrt{-19}}{2}$
C.	$x = 5$
D.	$x = 1$
E.	$x =$
F.	$x =$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x =$ and $x =$ $=$

Question 15b of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297726)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 + x + 3 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{-1 + \sqrt{11}}{2}$
*B.	$x = \frac{-1 - \sqrt{-11}}{2}$
C.	$x = 3$
D.	$x = 1$
E.	$x = \frac{-1 + \sqrt{-11}}{2}$
F.	$x = \frac{-1 + \sqrt{-13}}{2}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	The correct answers are: $x = \frac{-1 + \sqrt{11}}{2}$ and $x = \frac{-1 - \sqrt{11}}{2}$.

Question 15c of 15 (3 Using The Quadratic Formula to Solve Quadratic Equations 297727)

Maximum Attempts: 1
Question Type: Multiple Response
Maximum Score: 2

Question: Which of the following are solutions to the equation below?

Check all that apply.

$$x^2 + x + 4 = 0$$

Correct Answers:

	Choice
*A.	$x = \frac{-1 + \sqrt{15}}{2}$
*B.	$x = \frac{-1 - \sqrt{15}}{2}$
C.	$x = 4$
D.	$x = 1$
E.	$x = \frac{-1 + \sqrt{17}}{2}$
F.	$x = \frac{-1 + \sqrt{19}}{2}$

Attempt	Incorrect Feedback
1st	

	Correct Feedback

	Global Incorrect Feedback
	<p>The correct answers are: $x = \frac{-1 + \sqrt{-5}}{2}$ and $x = \frac{-1 - \sqrt{-5}}{2}$.</p>