Preview

PREVIEW CLOSE

Quiz: Factoring by Graphing (Advanced)

Question 1a of 11 (2 What it means for a polynomial to have one root or no roots 90888)

Maxi	mum Attempts:	1	
Ques	stion Type:	Multiple Ch	oice
Maxi	imum Score:	2	
Ques	stion:	The graph	below has:
	Choice	Feedback	
* A .			
в.	one repeated linear factor.		
c.	two dissimilar linear factors.		
		Globa	I Incorrect Feedback

The correct answer is: no linear factors.

Question 1b of 11 (2 What it means for a polynomial to have one root or no roots 294725)

Maximum Attempts:	1
Question Type:	Multiple Choice
Maximum Score:	2
Question:	The graph below has:

Preview

	Choice	Feedback
*A.	no linear factors.	
в.	one repeated linear factor.	
c.	two dissimilar linear factors.	

Global Incorrect Feedback

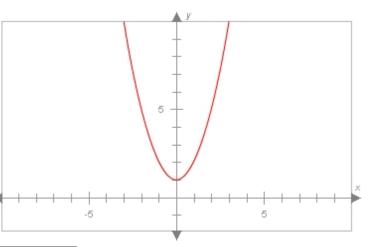
The correct answer is: no linear factors.

Question 1c of 11 (2 What it means for a polynomial to have one root or no roots 294726)

Maximum Attempts:	
Question Type:	
Maximum Score:	
Question:	

1
Multiple Choice
2

The graph below has:



	Choice	Feedback
*A.	no linear factors.	
в.	one repeated linear factor.	
c.	two dissimilar linear factors.	

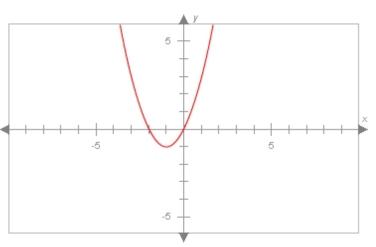
Global Incorrect Feedback

The correct answer is: no linear factors.

Question 2a of 11 (2 Identifying the roots of a polynomial and their importance 90889)

•
Maximum Attempts:
Question Type:
Maximum Score:
Question:

1	
Multiple Choice	
2	
The graph below has:	



	Choice	Feedback
Α.	no linear factors.	
в.	one repeated linear factor.	
*C.	two dissimilar linear factors.	

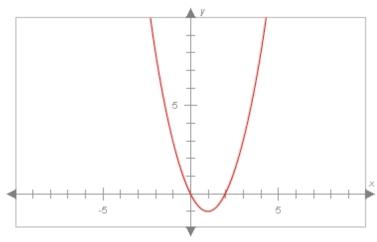
Global Incorrect Feedback

The correct answer is: two dissimilar linear factors.

Question 2b of 11 (2 Identifying the roots of a polynomial and their importance 294727)

Maximum Attempts:		
Question Type:		
Maximum Score:		
Question:		

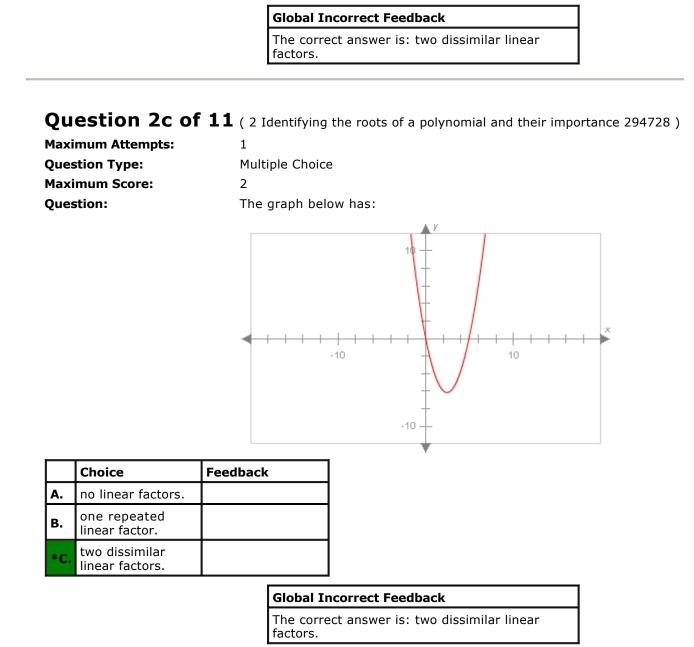
1 Multiple Choice 2 The graph below has:



	Choice	Feedback
Α.	no linear factors.	
в.	one repeated linear factor.	
*C.	two dissimilar linear factors.	

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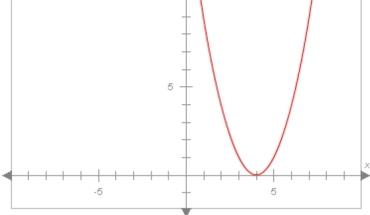
Question 3a of 11 (3 What it means for a polynomial to have one root or no roots 90890)

Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-5)^2, (x-5)(x-5), (1x-5)^2, (1x-5)(1x-5), (x^1-5)^2, (x^1-5)(x^1-5), (1x^1-5)^2, (1x^1-5)(1x^1-5), (x-5)*(x-5), (1x-5)*(1x-5), (x^1-5)*(x^1-5), (1x^1-5)*(1x^1-5)
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order.</i>

<i>y</i> =	
Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 5)^2$.

Question 3b of 11 (3 What it means for a polynomial to have one root or no roots 294729)

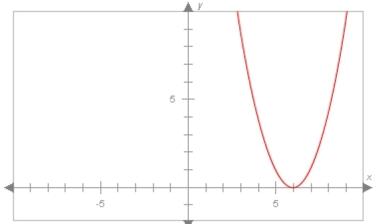
Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-4)^2, (x-4)(x-4), (1x-4)^2, (1x-4)(1x-4), (x^1-4)^2, (x^1-4)(x^1-4), (1x^1-4)^2, (1x^1-4)(1x^1-4), (x-4)*(x-4), (1x-4)*(1x-4), (x^1-4)*(x^1-4), (1x^1-4)*(1x^1-4), (1x^1-4)*(1x^1-4
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order.</i>
	- V



<i>y</i> =	
Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 4)^2$.

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-	
Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-6)^2, (x-6)(x-6), (1x-6)^2, (1x-6)(1x-6), (x^1-6)^2, (x^1-6)(x^1-6), (1x^1-6)^2, (1x^1-6)(1x^1-6), (x-6)*(x-6), (1x-6)*(1x-6), (x^1-6)*(x^1-6), (1x^1-6)*(1x^1-6), (1x^1-6)*(1x^1-6)
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order.
	<u>↓</u> <i>Y</i>



V =	=
-----	---

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 6)^2$.

Question 4a of 11 (3 What it means for a polynomial to have one root or no roots 90891)

Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-2)^2, (x-2)(x-2), (1x-2)^2, (1x-2)(1x-2), (x^1-2)^2, (x^1-2)(x^1-2), (1x^1-2)^2, (1x^1-2)(1x^1-2), (x-2)*(x-2), (1x-2)*(1x-2), (x^1-2)*(x^1-2), (1x^1-2)*(1x^1-2), (1x^1-2)*(1x^1-2)
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order.</i>

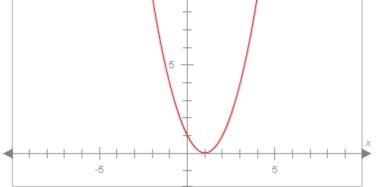
Preview

y =

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 2)^2$.

Question 4b of 11 (3 What it means for a polynomial to have one root or no roots 294731)

Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-1)^2, (x-1)(x-1), (1x-1)^2, (1x-1)(1x-1), (x^1-1)^2, (x^1-1)(x^1-1), (1x^1-1)^2, (1x^1-1)(1x^1-1), (x-1)*(x-1), (1x-1)*(1x-1), (x^1-1)*(x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1)*(1x^1-1)*(1x^1-1), (1x^1-1)*(1x^1-1
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order.</i>



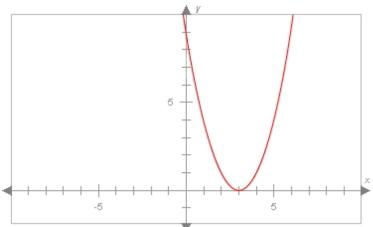
y =

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 1)^2$.

Question 4c of 11 (3 What it means for a polynomial to have one root or no roots 294732)

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Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	(x-3)^2, (x-3)(x-3), (1x-3)^2, (1x-3)(1x-3), (x^1-3)^2, (x^1-3)(x^1-3), (1x^1-3)^2, (1x^1-3)(1x^1-3), (x-3)*(x-3), (1x-3)*(1x-3), (x^1-3)*(x^1-3), (1x^1-3)*(1x^1-3)*(1x^1-3)
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order.</i>



y =

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x - 3)^2$.

Question 5a of 11 (3 What it means for a polynomial to have one root or no roots 90892)

Maximum Attempts:	1	
Question Type:	Text Fill In Blank	
Maximum Score:	2	
Is Case Sensitive:	false	
Correct Answer:	(x+5)^2, (x+5)(x+5), (1x+5)^2, (1x+5)(1x+5), (x^1+5)^2, (x^1+5)(x^1+5), (1x^1+5)^2, (1x^1+5)(1x^1+5), (x+5)*(x+5), (1x+5)*(1x+5), (x^1+5)*(x^1+5), (1x^1+5)*(1x^1+5)	
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret ($^{\circ}$). For example, you would enter $4x^2$ as $4x^2$.	

	<i>y</i> =
Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x + 5)^2$.

The correct answer is: $(x + 6)^2$.

Question 5b of 11 (3 What it means for a polynomial to have one root or no roots 294810)

-		
Maximum Attempts:	1	
Question Type:	Text Fill In Blank	
Maximum Score:	2	
Is Case Sensitive:	false	
Correct Answer:	(x+6)^2, (x+6)(x+6), (1x+6)^2, (1x+6)(1x+6), (x^1+6)^2, (x^1+6)(x^1+6), (1x^1+6)^2, (1x^1+6)(1x^1+6), (x+6)*(x+6), (1x+6)*(1x+6), (x^1+6)*(x^1+6), (1x^1+6)*(1x^1+6)*(1x^1+6)	
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret ($^{\circ}$). For example, you would enter $4x^2$ as $4x^2$.	
	▲ <i>Υ</i>	
	<i>y</i> =	
Attempt Incorrect Fe	edback	
1st		
Correct Feed	lback	
Global Incor	rect Feedback	

Question 5c of 11 (3 What it means for a polynomial to have one root or no roots 294811)

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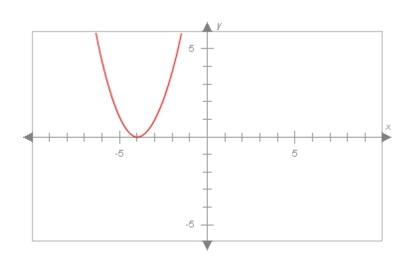
Maximum Attempts:1Question Type:Text Fill In BlankMaximum Score:2Is Case Sensitive:falseCorrect Answer: $(x+7)^2, (x+7)(x+7), (1x+7)^2, (1x+7), (x^1+7)^2, (x^1+7)(x^1+7), (x^1+7)^*(x+7), (1x+7)^*(1x+7), (x^1+7)^*(x+17))$ Question:What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret (^). For example, you would enter $4x^2$ as $4x^2$. $y =$ Attempt Incorrect Feedback	Question 5c o	f 11 (3 What it means for a polynomial to have one root or no roots 294811)
Maximum Score: 2 Is Case Sensitive: false (x+7)^2, (x+7)(x+7), (1x+7)^2, (1x+7)(1x+7), (x^1+7)^2, (x^1+7)(x^1+7), (1x^1+7)^2, (1x^1+7)^	Maximum Attempts:	1
Is Case Sensitive: Is Case Sensitive: Correct Answer: Correct Answer: Multi sthe factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret (^). For example, you would enter $4x^2$ as $4x^2$. $y = y^2$	Question Type:	Text Fill In Blank
Correct Answer: $(x+7)^2, (x+7)(x+7), (1x+7)^2, (1x+7)(1x+7), (x^1+7)^2, (x^1+7)(x^1+7), (1x^1+7)^2, (1x^1+7)(x^1+7), (1x^1+7)^2, (1x+7)^*(1x+7), (1x^1+7)^*(1x^1+7), (1x^1+7)^*(1x^1+7), (1x^1+7)^*(1x^1+7), (1x^1+7)^*(1x^1+7), (1x^1+7)^*(1x^1+7)$ Question:What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret (^). For example, you would enter $4x^2$ as $4x^2$. $\sqrt{y} =$	Maximum Score:	2
Correct Answer: $(1x^1+7)^2$, $(1x^1+7)(1x^1+7)$, $(x+7)^*(x+7)$, $(1x+7)^*(1x+7)$, $(x^1+7)^*(x^1+7)$, $(1x^1+7)^*(1x^1+7)$ Question:What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret (^). For example, you would enter $4x^2$ as $4x^2$. $y =$	Is Case Sensitive:	false
constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret (^). For example, you would enter $4x^2$ as $4x^2$.	Correct Answer:	(1x^1+7)^2, (1x^1+7)(1x^1+7), (x+7)*(x+7), (1x+7)*(1x+7),
y =	Question:	constant factor. Write each factor as a polynomial in descending order. Enter
Attempt Incorrect Feedback		
	Attempt Incorrect Fee	edback

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x + 7)^2$.

Question 6a of 11 (3 What it means for a polynomial to have one root or no roots 90893)

Maximum Attempts:	1	
Question Type:	Text Fill In Blank	
Maximum Score:	2	
Is Case Sensitive:	false	
Correct Answer:	$(x+4)^2$, $(x+4)(x+4)$, $(1x+4)^2$, $(1x+4)(1x+4)$, $(x^{1+4})^2$, $(x^{1+4})(x^{1+4})$, $(1x^{1+4})^2$, $(1x^{1+4})(1x^{1+4})$, $(x+4)^*(x+4)$, $(1x+4)^*(1x+4)$, $(x^{1+4})^*(x^{1+4})$, $(1x^{1+4})^*(1x^{1+4})$	
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. <i>Write each factor as a polynomial in descending order</i> . Enter exponents using the caret ($^$). For example, you would enter $4x^2$ as $4x^2$.	

Preview

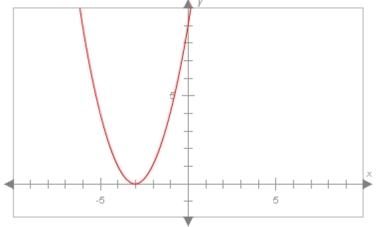




Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x + 4)^2$.

Question 6b of 11 (3 What it means for a polynomial to have one root or no roots 294812)

Maximum Attempts:	1	
Question Type:	Text Fill In Blank	
Maximum Score:	2	
Is Case Sensitive:	false	
Correct Answer:	$(x+3)^2$, $(x+3)(x+3)$, $(1x+3)^2$, $(1x+3)(1x+3)$, $(x^{1+3})^2$, $(x^{1+3})(x^{1+3})$, $(1x^{1+3})^2$, $(1x^{1+3})(1x^{1+3})$, $(x+3)^*(x+3)$, $(1x+3)^*(1x+3)$, $(x^{1+3})^*(x^{1+3})$, $(1x^{1+3})^*(1x^{1+3})$	
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret ($^{\circ}$). For example, you would enter $4x^2$ as $4x^2$.	
	A 16	

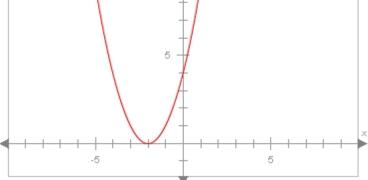




Attempt	Incorrect Feedback	
1st		
	Correct Feedback	
	Global Incorrect Feedback	
	The correct answer is: $(x + 3)^2$.	

Question 6c of 11 (3 What it means for a polynomial to have one root or no roots 294813)

Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	$(x+2)^2$, $(x+2)(x+2)$, $(1x+2)^2$, $(1x+2)(1x+2)$, $(x^{1+2})^2$, $(x^{1+2})(x^{1+2})$, $(1x^{1+2})^2$, $(1x^{1+2})(1x^{1+2})$, $(x+2)^*(x+2)$, $(1x+2)^*(1x+2)$, $(x^{1+2})^*(x^{1+2})$, $(1x^{1+2})^*(1x^{1+2})^*(1x^{1+2})$
Question:	What is the factorization of the polynomial graphed below? Assume it has no constant factor. Write each factor as a polynomial in descending order. Enter exponents using the caret ($^{\circ}$). For example, you would enter $4x^2$ as $4x^2$.



V	=

Attempt	Incorrect Feedback
1st	
	Correct Feedback
	Global Incorrect Feedback
	The correct answer is: $(x + 2)^2$.

Question 7a of 11 (3 What it means for a polynomial to have one root or no roots 120535)

Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	real
Question:	Graphs that do <i>not</i> cross or meet the x-axis do not have real roots. In other words, they don't have factors of the form of $ax + b$, where a and b are numbers.

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

Question 7b of 11 (3 What it means for a polynomial to have one root or no roots 294815)

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Maximum Attempts:	1
Question Type:	Text Fill In Blank
Maximum Score:	2
Is Case Sensitive:	false
Correct Answer:	real
Question:	Graphs that do <i>not</i> cross or meet the x-axis do not have real roots. In other words, they don't have factors of the form of $ax + b$, where a and b are numbers.

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

Question 7c of 11 (3 What it means for a polynomial to have one root or no roots 294816)

Maximum Attempts:	1			
Question Type:	Text Fill In Blank			
Maximum Score:	2			
Is Case Sensitive:	false			
Correct Answer:	real			
Question:	Graphs that do <i>not</i> cross or meet the x-axis do not have real roots. In other words, they don't have factors of the form of $ax + b$, where a and b are numbers.			
Attomat Incourset Ec	adha ak			

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

Question 8a of 11 (2 What it means for a polynomial to have one root or no roots 120537)

-							
Maxi	mum Attempts	:	1				
Ques	tion Type:	Multiple Choice					
Maxi	mum Score:		2				
Ques	stion:		Which of the following equations does not have real roots?				
	Choice	Feedback					
Α.	$x^2 + x - 2$						
В.	12 <i>x</i> ² - 17 <i>x</i> - 7						
*C.	$x^4 + 5x^2 + 6$						
D.	$2x^4 + 13x^3 + 21x^2$						
			Global Incorrect Feedback				
			The correct answer is: $x^4 + 5x^2 + 6$.				

 $2x^4 + 13x^3 +$

 $21x^{2}$

D.

Question 8b of 11 (2 What it means for a polynomial to have one root or no roots 294817)

Max	imum Attempts	:	1		
Que	stion Type:		Multiple Choice		
Max	imum Score:		2		
Que	stion:		Whic	h of the following equations does not have real roots?	
	Choice	Feedback			
A.	$\frac{\text{Choice}}{x^2 + 4x - 4}$	Feedback			
A. *B.	$x^2 + 4x - 4$	Feedback			

Global Incorrect Feedback

The correct answer is: $x^2 + x + 7$.

Question 8c of 11 (2 What it means for a polynomial to have one root or no roots 294818)

Maxi	imum Attem	pts:	1
Ques	stion Type:		Multiple Choice
Maxi	imum Score	:	2
Ques	stion:		Which of the following equations does not have real roots?
	Choice	Feedback]
*A.	$x^4 + 2x^2 + 2$		
В.	x ² - 17x - 7		
c.	$-x^4 + 4x^2 + 6$		
D.	2 <i>x</i> ² - 13]
			Clabel Incorrect Foodback

Global Incorrect Feedback The correct answer is: $x^4 + 2x^2 + 2$.

Question 9a of 11 (3 What it means for a polynomial to have one root or no roots 120539)

Maximum Attempts:	1
Question Type:	Numeric Fill In Blank
Maximum Score:	2
Correct Answer:	1
Question:	How many roots does $y = x^2 - 4x + 4$ have? It may help to graph the equation.

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

Question 9b of 11 (3 What it means for a polynomial to have one root or no roots 294819)

Maximum Attempts:	1
Question Type:	Numeric Fill In Blank
Maximum Score:	2
Correct Answer:	1
Question:	How many roots does $y = x^2 - 2x + 1$ have? It may help to graph the equation.

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

Question 9c of 11 (3 What it means for a polynomial to have one root or no roots 294820)

Maximum Attempts:	1
Question Type:	Numeric Fill In Blank
Maximum Score:	2
Correct Answer:	1
Question:	How many roots does $y = x^2 - 6x + 9$ have? It may help to graph the equation.

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

Question 10a of 11 (3 Explaining how different polynomials can have the same roots 331393)

Maximum Attempts: Question Type:

Maximum Score:

Question:

	Choice	Feedback
*A.	True	
В.	False	

1
True-False
2
The polynomial $y = x^2 - 4x + 4$ has a repeated factor.

Global Incorrect Feedback

The correct answer is: True.

Question 10b of 11 (3 Explaining how different polynomials can have the same roots 294838)

Maximum Attempts:	1
Question Type:	True-False
Maximum Score:	2
Question:	The polynomial $y = x^2 - 3x + 9$ has a repeated factor.

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Preview

	Choice	Feedback
Α.	True	
*B.	False	

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Global Incorrect Feedback

The correct answer is: False.

Question 10c of 11 (3 Explaining how different polynomials can have the same roots 294839)

Maximum Attempts: Question Type:

Maximum Score: Question:

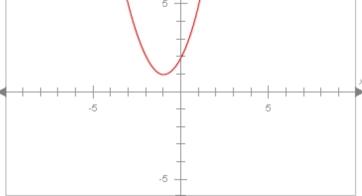
	Choice	Feedback
* A .	True	
В.	False	

1 True-False 2 The polynomial $y = x^2 - 8x + 16$ has a repeated factor.

Global Incorrect Feedback
The correct answer is: True.

Question 11a of 11 (2 What it means for a polynomial to have one root or no roots 120541)

1	
Multiple Choice	
2	
What are the factors of the polynomial graphed here?	
▲ <i>Y</i>	
5	



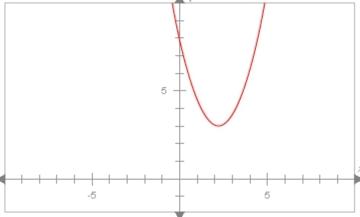
	Choice	Feedback
Α.	<i>x</i> = -5, <i>x</i> = 7	
В.	x = -2, x = 1.5	
C.	x = 2.2, x = 4.1	
*D.	It has no linear factors.	

Global Incorrect Feedback

The correct answer is: It has no linear factors.

Question 11b of 11 (2 What it means for a polynomial to have one root or no roots 294864)

Maximum Attempts:	1
Question Type:	Multiple Choice
Maximum Score:	2
Question:	What are the factors of the polynomial graphed here?
	¥



	Choice	Feedback
Α.	<i>x</i> = -7, <i>x</i> = 5	
В.	x = -3, x = 1	
C.	x = 8.2, x = 4.1	
*D.	It has no linear factors.	

Global Incorrect Feedback The correct answer is: It has no linear factors.

Question 11c of 11 (2 What it means for a polynomial to have one root or no roots 294865)

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Maximum Attempts:	1	
Question Type:	Multiple Choice	
Maximum Score:	2	
Question:	What are the factors of the polynomial graphed here?	

	Choice	Feedback
Α.	x = -2, x = 10	
В.	x = -5, x = 1.5	
C.	x = 7.2, x = 4.1	
*D.	It has no linear factors.	

Global Incorrect Feedback

The correct answer is: It has no linear factors.