

Test (CS): Radical Expressions

**Question 1 of 25** ( 91869 )

**Maximum Attempts:** 1

**Question Type:** Multiple Choice

**Maximum Score:** 3

**Question:** Which choice is equivalent to the product below?

$$\sqrt{45} \cdot \sqrt{10}$$

	Choice	Feedback
A.	$\sqrt{55}$	
*B.	$15\sqrt{2}$	Correct!
C.	$8\sqrt{2}$	
D.	$5\sqrt{5}$	

**Global Incorrect Feedback**

The correct answer is:  $15\sqrt{2}$ .

**Question 2 of 25** ( 295987 )

**Maximum Attempts:** 1

**Question Type:** Multiple Choice

**Maximum Score:** 3

**Question:** Which choice is equivalent to the product below?

$$\sqrt{57} \cdot \sqrt{5}$$

	Choice	Feedback
A.	$2\sqrt{5}$	
B.	$\sqrt{23}$	
*C.	$3\sqrt{2}$	Correct!
D.		

**Global Incorrect Feedback**

The correct answer is: .

**Question 3 of 25** ( 91870 )

**Maximum Attempts:** 1

**Question Type:** Numeric Fill In Blank

**Maximum Score:** 3

**Correct Answer:** 19

**Question:** Evaluate the expression below.

Attempt	Incorrect Feedback
1st	

Alg

	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 19.

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### Question 4 of 25 ( 295989 )

**Maximum Attempts:** 1  
**Question Type:** Numeric Fill In Blank  
**Maximum Score:** 3  
**Correct Answer:** 31  
**Question:** Evaluate the expression below.

$$(6 - \sqrt{5})(\sqrt{5} + 6)$$

<b>Attempt</b>	<b>Incorrect Feedback</b>
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 31.

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### Question 5 of 25 ( 91871 )

**Maximum Attempts:** 1  
**Question Type:** Numeric Fill In Blank  
**Maximum Score:** 3  
**Correct Answer:** 10  
**Question:** Evaluate the expression below.

$$(4 - \sqrt{6})(\sqrt{6} + 4)$$

<b>Attempt</b>	<b>Incorrect Feedback</b>
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 10.

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### Question 6 of 25 ( 295991 )

**Maximum Attempts:** 1  
**Question Type:** Numeric Fill In Blank  
**Maximum Score:** 3  
**Correct Answer:** 8  
**Question:** Evaluate the expression below.

Alg

<b>Attempt</b>	<b>Incorrect Feedback</b>
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 8.

### Question 7 of 25 ( 138555 )

**Maximum Attempts:** 1

**Question Type:** Multiple Choice

**Maximum Score:** 3

**Question:** Which choice is equivalent to the product below?

$$\sqrt{\frac{3}{14}} \cdot \sqrt{\frac{7}{8}}$$

	Choice	Feedback
A.	$\sqrt{\frac{11}{21}}$	
*B.	$\frac{\sqrt{3}}{4}$	Correct!
C.	$\frac{2\sqrt{3}}{7}$	

#### Global Incorrect Feedback

The correct answer is:  $\frac{\sqrt{3}}{4}$ .

### Question 8 of 25 ( 138557 )

**Maximum Attempts:** 1

**Question Type:** Multiple Choice

**Maximum Score:** 3

**Question:** Which inequality represents all values of x for which the product below is defined?

	Choice	Feedback
A.	$x < 0$	
B.	$x \geq 0$	
*C.	$x \geq 2$	Correct!
D.	$x > 2$	

#### Global Incorrect Feedback

The correct answer is:  $x \geq 2$ .

Alg

### Question 9 of 25 ( 295997 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which inequality represents all values of  $x$  for which the product below is defined?

$$\sqrt{4x^2} \cdot \sqrt{x-3}$$

	Choice	Feedback
A.	$x > 3$	
*B.	$x \geq 3$	Correct!
C.	$x \geq 0$	
D.	$x < 0$	

**Global Incorrect Feedback**

The correct answer is:  $x \geq 3$ .

### Question 10 of 25 ( 91874 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the product below when  $x > 0$ ?

$$\sqrt{2} \cdot \sqrt{2x}$$

	Choice	Feedback
A.	$2x$	
B.	$\frac{3}{\sqrt{x^3}}$	
*C.	$2\sqrt{x}$	Correct!
D.	$4\sqrt{x}$	

**Global Incorrect Feedback**

The correct answer is:  $2\sqrt{x}$ .

### Question 11 of 25 ( 91875 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the product below when  $x > 0$ ?

Alg

	Choice	Feedback
A.	$\frac{x}{9}$	
*B.	$\frac{x}{3}$	Correct!
C.	$\frac{\sqrt{x}}{3}$	

Global Incorrect Feedback
The correct answer is: $\frac{x}{3}$ .

### Question 12 of 25 ( 296001 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the product below when  $x > 0$ ?

$$\sqrt{\frac{3x}{2}} \cdot \sqrt{\frac{x}{3}}$$

	Choice	Feedback
*A.	$\frac{x}{2}$	Correct!
B.	$\frac{x}{3}$	
C.	$\frac{\sqrt{x}}{2}$	

Global Incorrect Feedback
The correct answer is: $\frac{x}{2}$ .

### Question 13 of 25 ( 91876 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the expression below?

	Choice	Feedback
*A.		Correct!
B.		
C.		
D.		

Global Incorrect Feedback
The correct answer is: .

### Question 14 of 25 ( 296004 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the expression below?

$$\sqrt{3x} + \sqrt{2x} + 4\sqrt{x}$$

	Choice	Feedback
A.	$\sqrt{1-x} + 4\sqrt{x}$	
*B.	$5\sqrt{x}$	Correct!
C.	$5\sqrt{2x} + 4\sqrt{x}$	
D.	$17\sqrt{x}$	

#### Global Incorrect Feedback

The correct answer is:  $5\sqrt{x}$ .

### Question 15 of 25 ( 91877 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the expression below?

$$\sqrt{6} + 2\sqrt{3} + \sqrt{27} - \sqrt{12}$$

	Choice	Feedback
A.	$5\sqrt{3}$	
B.	$5\sqrt{3} - 6$	
C.	$2\sqrt{3} - \sqrt{21}$	
*D.	$3\sqrt{3} + \sqrt{6}$	Correct!

#### Global Incorrect Feedback

The correct answer is: .

### Question 16 of 25 ( 91878 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which inequality represents all values of x for which the quotient below is defined?

Alg

	Choice	Feedback
A.	$x \geq -1$	
B.	$-1 \leq x \leq 3$	
C.	$x \leq 3$	
*D.	$-1 \leq x < 3$	Correct!

**Global Incorrect Feedback**

The correct answer is:  $-1 \leq x < 3$ .

**Question 17 of 25** ( 296008 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which inequality represents all values of  $x$  for which the quotient below is defined?

$$\frac{\sqrt{x+1}}{\sqrt{4-x}}$$

	Choice	Feedback
A.	$x \geq -1$	
B.	$-1 \leq x \leq 4$	
C.	$x \leq 4$	
*D.	$-1 \leq x < 4$	Correct!

**Global Incorrect Feedback**

The correct answer is:  $-1 \leq x < 4$ .

**Question 18 of 25** ( 91879 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the quotient below when  $-3 < x < 3$ ?

	Choice	Feedback
*A.		Correct!
B.		
C.		
D.	1	

**Global Incorrect Feedback**

The correct answer is: .

Alg

### Question 19 of 25 ( 91880 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the quotient below when  $x > 0$ ?

$$\sqrt{6x + 27x^3} \div \sqrt{3x}$$

	Choice	Feedback
A.	$\sqrt{2} + 3x$	
*B.	$\sqrt{2 + 9x^2}$	Correct!
C.	$\sqrt{2 + 27x^3}$	
D.	$\sqrt{3x + 27x^3}$	

#### Global Incorrect Feedback

The correct answer is:  $\sqrt{2 + 9x^2}$ .

### Question 20 of 25 ( 296013 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the quotient below when  $x > 0$ ?

$$\sqrt{6x + 27x^3} \div \sqrt{3x}$$

	Choice	Feedback
A.	$\sqrt{2} + 3x$	
B.	$\sqrt{2 + 18x^2}$	
*C.	$\sqrt{2 + 9x^2}$	Correct!
D.	$\sqrt{2x + 18x^2}$	

#### Global Incorrect Feedback

The correct answer is: .

### Question 21 of 25 ( 91881 )

Maximum Attempts: 1

Question Type: Numeric Fill In Blank

Maximum Score: 3

Correct Answer: 3

Question: Rationalize the denominator of the fraction and enter the new denominator below.

Attempt	Incorrect Feedback
1st	



Alg

	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 3.

### Question 22 of 25 ( 296015 )

**Maximum Attempts:** 1  
**Question Type:** Numeric Fill In Blank  
**Maximum Score:** 3  
**Correct Answer:** 2  
**Question:** Rationalize the denominator of the fraction and enter the new denominator below.

$$\frac{4}{2\sqrt{7}}$$

<b>Attempt</b>	<b>Incorrect Feedback</b>
1st	
	<b>Correct Feedback</b>
	Correct!
	<b>Global Incorrect Feedback</b>
	The correct answer is: 2.

### Question 23 of 25 ( 91882 )

**Maximum Attempts:** 1  
**Question Type:** Multiple Choice  
**Maximum Score:** 3  
**Question:** Which choice is equivalent to the fraction below? (*Hint: Rationalize the denominator and simplify.*)

$$\frac{2 - \sqrt{2}}{2 + \sqrt{2}}$$

	Choice	Feedback
*A.		Correct!
B.		
C.		
D.	2	

<b>Global Incorrect Feedback</b>
The correct answer is: .

Alg

### Question 24 of 25 ( 91883 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the fraction below? (*Hint: Rationalize the denominator and simplify.*)

$$\frac{2}{\sqrt{x} + \sqrt{x+2}}$$

	Choice	Feedback
A.	$\sqrt{x} + \sqrt{x+2}$	
B.	$\sqrt{x} - \sqrt{x+2}$	
*C.	$\sqrt{x+2} - \sqrt{x}$	Correct!

<b>Global Incorrect Feedback</b>
The correct answer is: $\sqrt{x+2} - \sqrt{x}$ .

### Question 25 of 25 ( 296019 )

Maximum Attempts: 1

Question Type: Multiple Choice

Maximum Score: 3

Question: Which choice is equivalent to the fraction below? (*Hint: Rationalize the denominator and simplify.*)

$$\frac{2}{\sqrt{x} - \sqrt{x+2}}$$

	Choice	Feedback
*A.	$\sqrt{x} - \sqrt{x+2}$	Correct!
B.	$\sqrt{x} + \sqrt{x+2}$	
C.	$\sqrt{x+2} - \sqrt{x}$	

<b>Global Incorrect Feedback</b>
The correct answer is: .