**Question #1/25**

Simplify.



Be sure to write your answer in lowest terms.

**Question #2/25**

Rewrite the following in simplified radical form.



**Question #3/25**

Rewrite the following in simplified radical form.



Assume that all variables represent positive real numbers.

**Question #4/25**

Write the following expression in simplified radical form.



Assume that all variables represent positive real numbers.

**Question #5/25**

Simplify the following expression as much as possible:



Assume that all variables represent positive real numbers.

**Question #6/25**

Simplify.



Assume that all variables represent positive real numbers.

**Question #7/25**

Multiply.



Simplify your answer as much as possible.

**Question #8/25**

Rationalize the denominator and simplify.



**Question #9/25**

Write in simplified radical form by rationalizing the denominator.



**Question #10/25**

Solve for  , where is a real number.



(If there is more than one solution, separate them with commas.)

**Question #11/25**

Solve for  , where is a real number.



(If there is more than one solution, separate them with commas.)

**Question #12/25**

Solve for  , where is a real number.



(If there is more than one solution, separate them with commas.)

**Question #14/25**

Simplify.



**Question #15/25**

Compute the following:

.

**Question #16/25**

Write the following in simplified radical form.



**Question #17/25**

Write the following expression in simplified radical form.



Assume that all of the variables in the expression represent positive real numbers.

**Question #18/25**

Find the roots of the quadratic equation:

 .

(If there is more than one root, separate them with commas.)

**Question #19/25**

Solve:

 .

(If there is more than one solution, separate them with commas.)

**Question #20/25**

Solve the equation



for  .

(If there is more than one solution, separate them with commas.)

**Question #21/25**

Solve  , where is a real number.
Simplify your answer as much as possible.

If there is more than one solution, separate them with commas.

**Question #22/25**

Solve  , where is a real number.
Simplify your answer as much as possible.

If there is more than one solution, separate them with commas.

**Question #23/25**

Compute the value of the discriminant and give the number of real solutions to the quadratic equation.



Discriminant ?

Number of real solution ?

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| **Question #24/25** Use the quadratic formula to solve for http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%7B. http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?1%7B%3Fpvs%3D1%3F%2Cpvs%3D%23%2E%23%3A%7B%23%28%236%23%3E%233(If there is more than one solution, separate them with commas.)  |

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| **Question #25/25** When a ball is thrown, its height in feet http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?kafter http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?wseconds is given by the equation http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?k%23%3E%23u%23w%23%2E%2325%23w%3Fpvs%3D1%3F%2Cpvs%3D , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?uis the initial upwards velocity in feet per second. If http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?u%23%3E%2306feet per second, find all values of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?wfor which http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?k%23%3E%232%3Bfeet. Do not round any intermediate steps. Round your answer to http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?1decimal places. (If there is more than one answer, enter additional answers with the button that says "or".)  |

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