**Question #1/25**

Simplify.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3D%3Fal%7B%3D216%3Flufq%3D76%3F%2Cal%7B%3D%3F%2Cprqw%3D

Be sure to write your answer in lowest terms.

**Question #2/25**

Rewrite the following in simplified radical form.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3D67%3F%2Cprqw%3D

**Question #3/25**

Rewrite the following in simplified radical form.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3D46%7B%3Fpvs%3D5%3F%2Cpvs%3D%3F%2Cprqw%3D

Assume that all variables represent positive real numbers.

**Question #4/25**

Write the following expression in simplified radical form.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3D67%23z%3Fpvs%3D6%3F%2Cpvs%3D%23y%3Fpvs%3D5%3F%2Cpvs%3D%3F%2Cprqw%3D

Assume that all variables represent positive real numbers.

**Question #5/25**

Simplify the following expression as much as possible:

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Aw%3Fprqw%3D50%7B%3Fpvs%3D6%3F%2Cpvs%3D%3F%2Cprqw%3D%23%2E%23%7B%3Fpvs%3D1%3F%2Cpvs%3D%3Fprqw%3D1%3B%7Bw%3Fpvs%3D1%3F%2Cpvs%3D%3F%2Cprqw%3D

Assume that all variables represent positive real numbers.

**Question #6/25**

Simplify.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3D0%23v%23y%3Fpvs%3D%3B%3F%2Cpvs%3D%3F%2Cprqw%3D%23%3Fprqw%3D5%23v%3Fpvs%3D0%3F%2Cpvs%3D%23y%3Fpvs%3D1%3F%2Cpvs%3D%3F%2Cprqw%3D

Assume that all variables represent positive real numbers.

**Question #7/25**

Multiply.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%2B6%3Fprqw%3D1%3F%2Cprqw%3D%23%2E%232%2A%23%2B0%23%2E%236%3Fprqw%3D23%3F%2Cprqw%3D%2A

Simplify your answer as much as possible.

**Question #8/25**

Rationalize the denominator and simplify.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fal%7B%3D%3Fprqw%3D26%3F%2Cprqw%3D%3Flufq%3D%3Fprqw%3D66%3F%2Cprqw%3D%3F%2Cal%7B%3D

**Question #9/25**

Write in simplified radical form by rationalizing the denominator.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fal%7B%3D%3Fprqw%3D5%3F%2Cprqw%3D%23%2E%234%3Flufq%3D6%23%3Fprqw%3D5%3F%2Cprqw%3D%23%28%23%3A%3F%2Cal%7B%3D

**Question #10/25**

Solve for http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?v , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?vis a real number.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3Dv%23%2E%2317%3F%2Cprqw%3D%23%3E%231

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

**Question #11/25**

Solve for http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?y , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?yis a real number.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fprqw%3Dy%23%28%236%3F%2Cprqw%3D%23%3E%23%3Fprqw%3D0y%23%2E%23%3B%3F%2Cprqw%3D

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

**Question #12/25**

Solve for http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?w , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?wis a real number.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?w%23%3E%23%3Fprqw%3D5w%23%28%2325%3F%2Cprqw%3D

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

**Question #14/25**

Simplify.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?01%3Fpvs%3D%3Fal%7B%3D7%3Flufq%3D6%3F%2Cal%7B%3D%3F%2Cpvs%3D

**Question #15/25**

Compute the following:

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fal%7B%3D%3Fqllw%3D0%3Fle%3D%2E%3B%3F%2Cqllw%3D%3F%2Cal%7B%3D.

**Question #16/25**

Write the following in simplified radical form.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fal%7B%3D%3Fqllw%3D0%3Fle%3D%3B2%3F%2Cqllw%3D%3F%2Cal%7B%3D

**Question #17/25**

Write the following expression in simplified radical form.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3Fal%7B%3D%3Fqllw%3D0%3Fle%3D17z%3Fpvs%3D7%3F%2Cpvs%3Dy%3Fpvs%3D26%3F%2Cpvs%3D%3F%2Cqllw%3D%3F%2Cal%7B%3D

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

**Question #18/25**

Find the roots of the quadratic equation:

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?y%3Fpvs%3D1%3F%2Cpvs%3D%23%28%23%3By%23%28%2321%23%3E%233 .

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

**Question #19/25**

Solve:

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?6%23v%3Fpvs%3D1%3F%2Cpvs%3D%23%2E%2317%23v%3E6 .

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

**Question #20/25**

Solve the equation

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%0E%091y%3Fpvs%3D1%3F%2Cpvs%3D%23%2E%23%3Ay%23%2E%2323%0E%09%3E%23%0E%09%2By%23%2E%231%2A%3Fpvs%3D1%3F%2Cpvs%3D%0E%09

for http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?y .

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

**Question #21/25**

Solve http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%7B%3Fpvs%3D1%3F%2Cpvs%3D%23%3E%2346 , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%7Bis 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 http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%2Bz%23%2E%230%2A%3Fpvs%3D1%3F%2Cpvs%3D%23%2E%2317%23%3E%233 , where http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?zis 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.

http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?0%7B%3Fpvs%3D1%3F%2Cpvs%3D%23%28%236%7B%23%28%234%23%3E%233

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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| |  | | --- | |  | | http://www.phoenix.aleks.com/aleks/gif/student/baseball.gif | |  | | --- | |  | | |  | | --- | |  | |