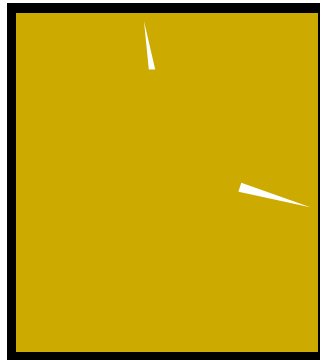


ROUND #7

Gainesville College
Mathematics Tournament
For Two-Year Colleges
April 2, 2005

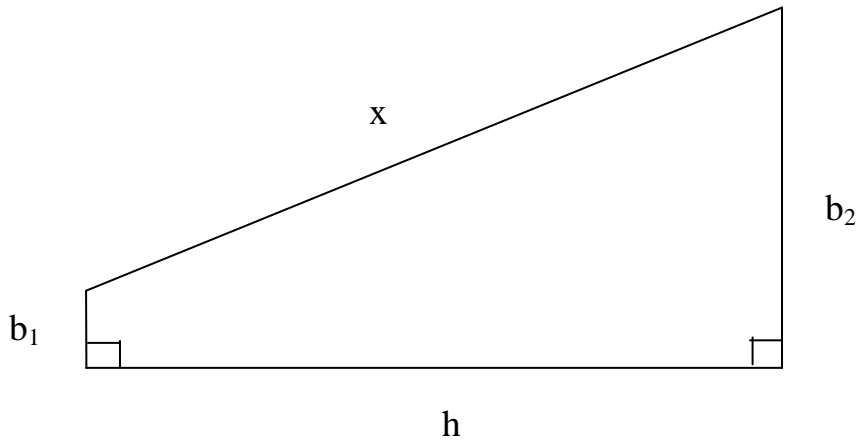
Suppose that $g(x) = 1 + \sqrt{x}$. Find f such that $f(g(x)) = 3 + 2\sqrt{x} + x$.

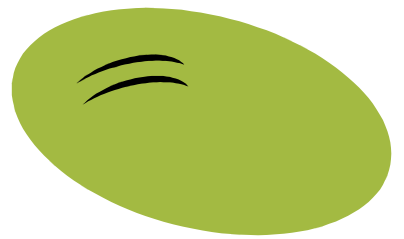


ROUND #8

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Suppose a ramp has a trapezoidal cross section as shown with base, $b_1 = 0.5$ ft, such that $b_1 : b_2 = 1:13$. Find the length x (in feet) of the ramp if the area of the cross section is 28 ft^2 .





ROUND #10

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Find the exact value:

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