

Proposed problem to the American Mathematical Monthly

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Statement of the problem: *A stick is broken into three pieces at random (the two breaking points are, simultaneously, chosen at random with uniform distribution). Show that the probability that the three segments are the heights of a triangle is equal to*

$$\frac{4}{25} \left(3\sqrt{5} \ln \frac{3 + \sqrt{5}}{2} - 5 \right).$$