

July 14th

In a sack, there are five sticks with lengths

6cm, 6cm, 8cm, 12cm and 13cm.

If three are picked at random, what is the probability that they can form a triangle?

There are 5_3C ways to choose 3 sticks = 10

Now look for triplets that won't make a triangle

6, 6, 12

6, 6, 13

Therefore the probability of choosing 3 that will form a triangle is $\frac{8}{10}$

(Combinations listed below:

6, 6, 8

6, 8, 12 (twice)

6, 8, 13 (twice)

6, 12, 13 (twice)

8, 12, 13)