### **Ants in a triangle probability question**

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**Question:** *Three ants are in the corners of an equilateral triangle. Each ant moves in a random direction along the edges of the triangle. What is the probability that none of the ants collide with the triangle?*

**Answer:** *There's a 50% chance of the ants never meeting and a 50% that at least two can collide. So, the ants all can move in either a clockwise or counter-clockwise direction, which then splits your first 50% chance of the ants not colliding down to a 25% chance because half of 50 is 25."*