**The mathematics of street games: Skellzies!**

The diagram below is a variation of a skellzies board. Imagine flicking a bottle cap towards a skellzies board from a distance of 4 feet away. What are the chances that the cap will stop within *“The Skull”*?

*(Assume that the cap always slides in a straight line. Furthermore, assume that the person flicking the cap has enough skellzies-skills for the cap to stop somewhere between its’ starting point and somewhere within the skellzies board.)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2** |  | **9** | **11** |  | **3** |
| **SKELLZIES****SKELLZIES****SKELLZIES** |
| **5** |  | **The***6-inch***Skull!***6-inch* |  | **6** |
| **7** | **8** |
| **SKELLZIES** |
| **4** |  | **10** | **12** |  | **1** |

 *1-inch**Bottle Cap*

 *6-foot Square*

**The mathematics of street games: Skellzies!**

The diagrams below are variations of a skellzies board. Without lifting your pencil from the page, use straight lines to connect all of the dots in such a way that your lines pass through the dot in the center of the board as much as possible. Your lines must connect with each of the dots on the border once.

Describe how you thought about this activity and the mathematics you used.

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How does this activity compare to an actual skellzies board?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The mathematics of street games: Skellzies!**

In a game of skellzies, a player can sometimes call out “Blasties!” and flick another player’s cap out of the board. Flick cap *A* so that it collides with cap *B*. Which directions do you suspect that both caps will move in after the collision?

**A**

 ***Flick this cap…***

**B**

***Where would both caps go?***

**A**

**B**

**Cap A was flicked in this**

**direction and collided with**

**Cap B. Where would both caps go?**

**The mathematics of street games: Skellzies!**

The diagram below is section of a skellzies board. Usually there are thirteen 6-inch boxes within a skellzies board, but what you see below is only one of the thirteen boxes. *How many 1-inch bottle caps can fit completely within the box? Does the arrangement matter? (Please explain.)*

**1**

BOTTLE CAP

**2**

BOTTLE CAP

**1**

BOTTLE CAP

**2**

BOTTLE CAP

**3**

BOTTLE CAP

**4**

BOTTLE CAP

**5**

BOTTLE CAP

**6**

BOTTLE CAP

**7**

**8**

BOTTLE CAP

**9**

**10**

**11**

**12**

BOTTLE CAP

**13**

BOTTLE CAP

**Starting Line**