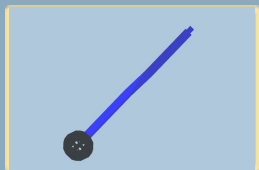
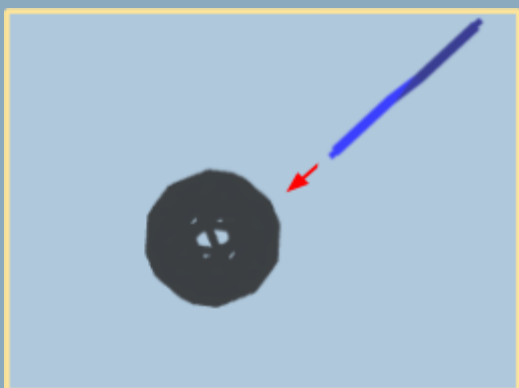


Cross Product Instruction Manual

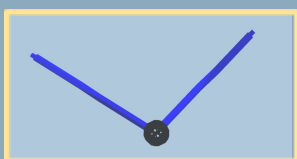


How does three-dimensional space effect orthogonality between vectors?
What properties are the result of vectors in \mathbb{R}^3 ?

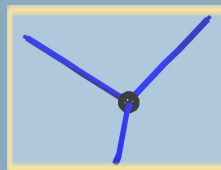
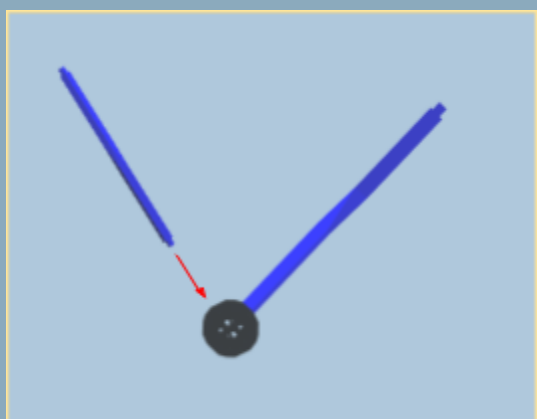
1



Connect two sticks such that they are orthogonal

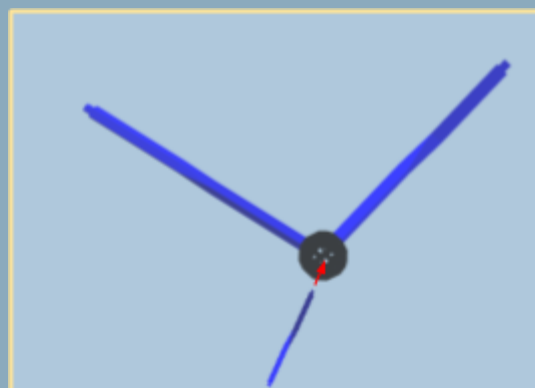


2



3

Connect a third stick orthogonal to the first two



Compare your groups cross product to other groups in class. Using the Zometools, how many groups have the same blue #2 cross product?

Do the Zometools allow us to find a cross product for any combination of two vectors?

In \mathbb{R}^3 (not limited by Zometools) can you find a cross product for any combination of two vectors?

If the Zometools represent vectors, how many possible vector *directions* can you create orthogonal to any pair of existing vectors?