Ne'epapa Ka Hana Mathematics Resources
Professional Development Course
Video 1 *Example Activities*

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Seven (7) friends are reheating some leftover pizza for lunch. In the refrigerator are two slices of different sizes. One slice is one-quarter (1/4) of a whole pizza and the other slice is one-third (1/3) of a pizza.

In order to share the pizza equally, one person suggests to cut it up into **one-twelfth** (1/12) size slices. Does this work? Please explain why or why not.

Inoa (Name): _____

Lā (Date): _____

Let's learn about the rules of *independent events* using two six-sided dice.

1. Roll the two dice 20 times and complete the following table.

Trial	First die	Second die	Sum of the two dice
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

2. Summarize the data you collected.
   (a) Total number of trials: __20__
   (b) Total number of 6's
       from the first die roll: _____
   (c) Total number of 6's
       from the second die roll: _____
   (d) Total number of 12's
       from the sums of the two dice: _____

3. Share your data with the class.

4. Summarize the class data.
   (a) Total number of trials: _____
   (b) Total number of 6's
       from the first die roll: _____
   (c) Total number of 6's
       from the second die roll: _____
   (d) Total number of 12's
       from the sums of the two dice: _____

5. Calculate the following probabilities:
   (a) Rolling a 6 with the first die: _____

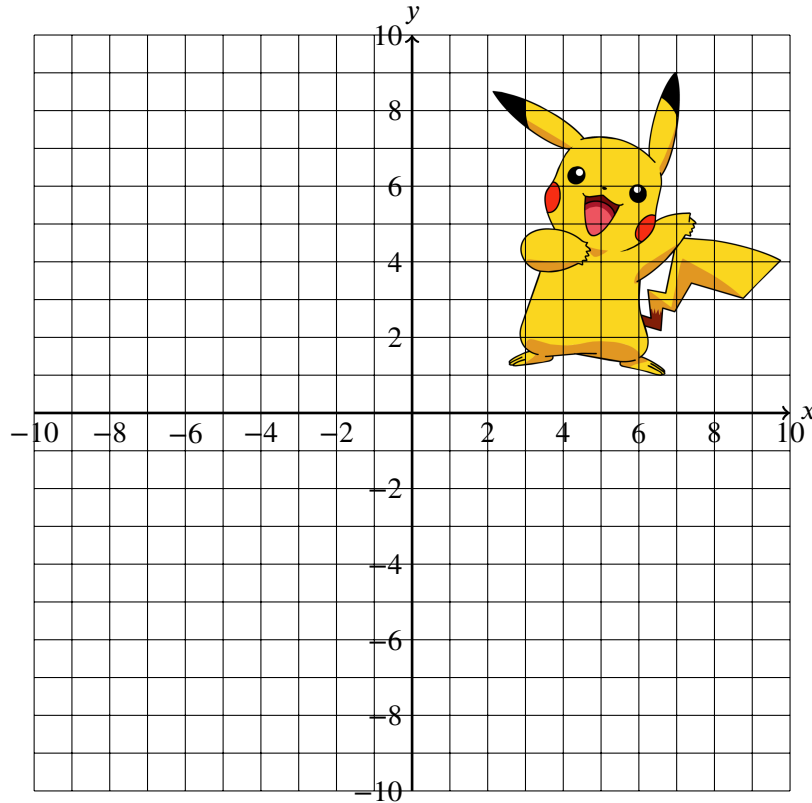   (b) Rolling a 6 with the second die: _____

   (c) Rolling a 12 with both dice: _____

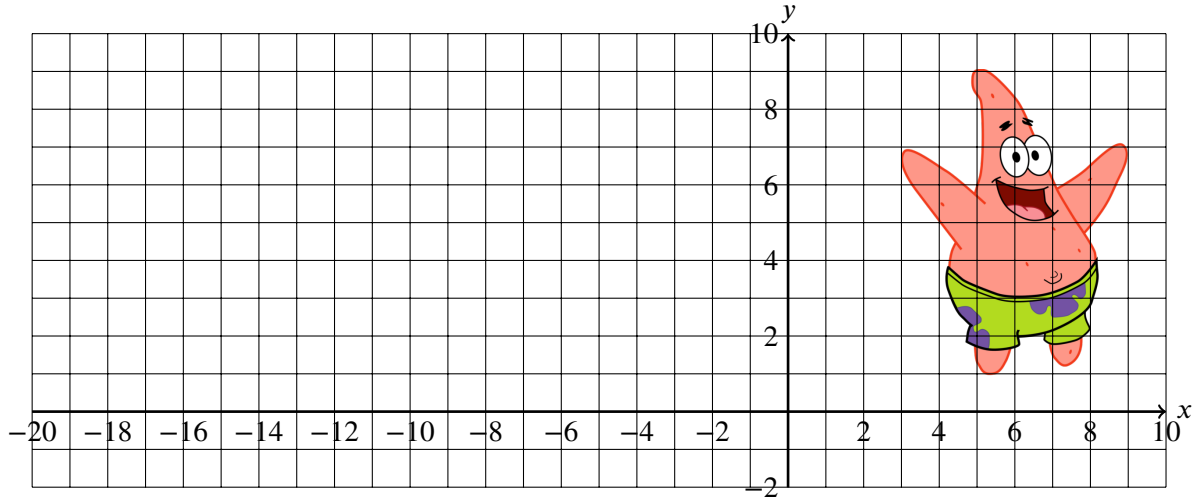6. What do you think is the relationship between the answers from Part 5?

Reflect Pikachu about the y-axis, then rotate Pikachu 90° counter-clockwise about the origin. Draw the **final Pikachu**. Hint: it might help to do a rough sketch of Pikachu after the first reflection.

Inoa (Name): _____

Lā (Date): _____

Reflect Patrick about the y-axis, then translate Patrick 10 units left. Draw the **final Patrick**. Hint: it might help to do a rough sketch of Patrick after the first reflection.

We're going to look at some popular racing sports and learn about how competitive they are.

1. Choose a famous race. E.g. Molokaʻi Hoe, Nā Wāhine O Ke Kai, Great Aloha Run, Ironman Triathlon etc.

    _____

2. Look online for a list of the top twenty winners. Write down the team/athlete and their finishing times. Depending on the type of race, you might have to convert to minutes or seconds.

Team/Athlete	Finishing Time

3. Create a *stem and leaf plot* with the data you collected.

4. Does your data suggest that the race you chosen is highly competitive? How do you know?