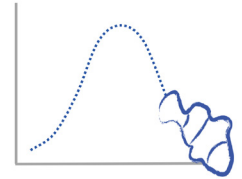


Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Healthy Oceans: Preventing Plastic Pollution

### Math and Computational Challenges



1. Using the information given in the video about the Japanese teenager's soccer ball, write an equation to calculate the average speed of the ocean current(s) that transported the ball across the Pacific Ocean. Then, solve the equation!

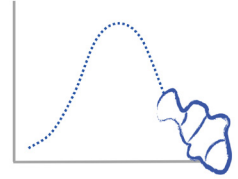
2. Using the information given in the video about how much plastic gets into the ocean every year, create a graph of plastic in the ocean over time. Use 1930 as the year of 'zero' plastic in the ocean (*this was the decade when mass production of plastic began*). Then, use this graph to predict how much plastic will be in the oceans by the year 2050 if plastic pollution continues at this rate.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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3. Calculate the surface area of a rectangular plastic container lid 60 cm x 30 cm x 2 cm. Now, imagine that this plastic lid gets carried into the ocean by a wave and slowly photodegrades into 100 equally-sized pieces. What is the total surface area of all of these 100 pieces?

