Week 1: Sink or Float

Dr. Turner

Overview

- Part 1: Will the bowling ball sink or float?
- Part 2: The floating egg

Part 1

- Question: Will a bowling ball sink or float on water?
- Considerations:
  - What determines whether something will sink or float on something else?

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- Considerations:
  - What determines whether something will sink or float on something else?
    - The less dense material floats on the denser material
  - Which data and calculations will be needed to help determine this?
    - The density of the bowling ball and the density of water

Overview

- You and your partner should devise a way to determine the density of the bowling ball using scales, string, and rulers.
  - Make sure to use appropriate significant figures
- Based on your data, hypothesize whether the ball will sink or float
- Lastly, you will test the validity of your hypothesis in front of the class

Part 2

- Question: What is the density of the egg?
- Considerations
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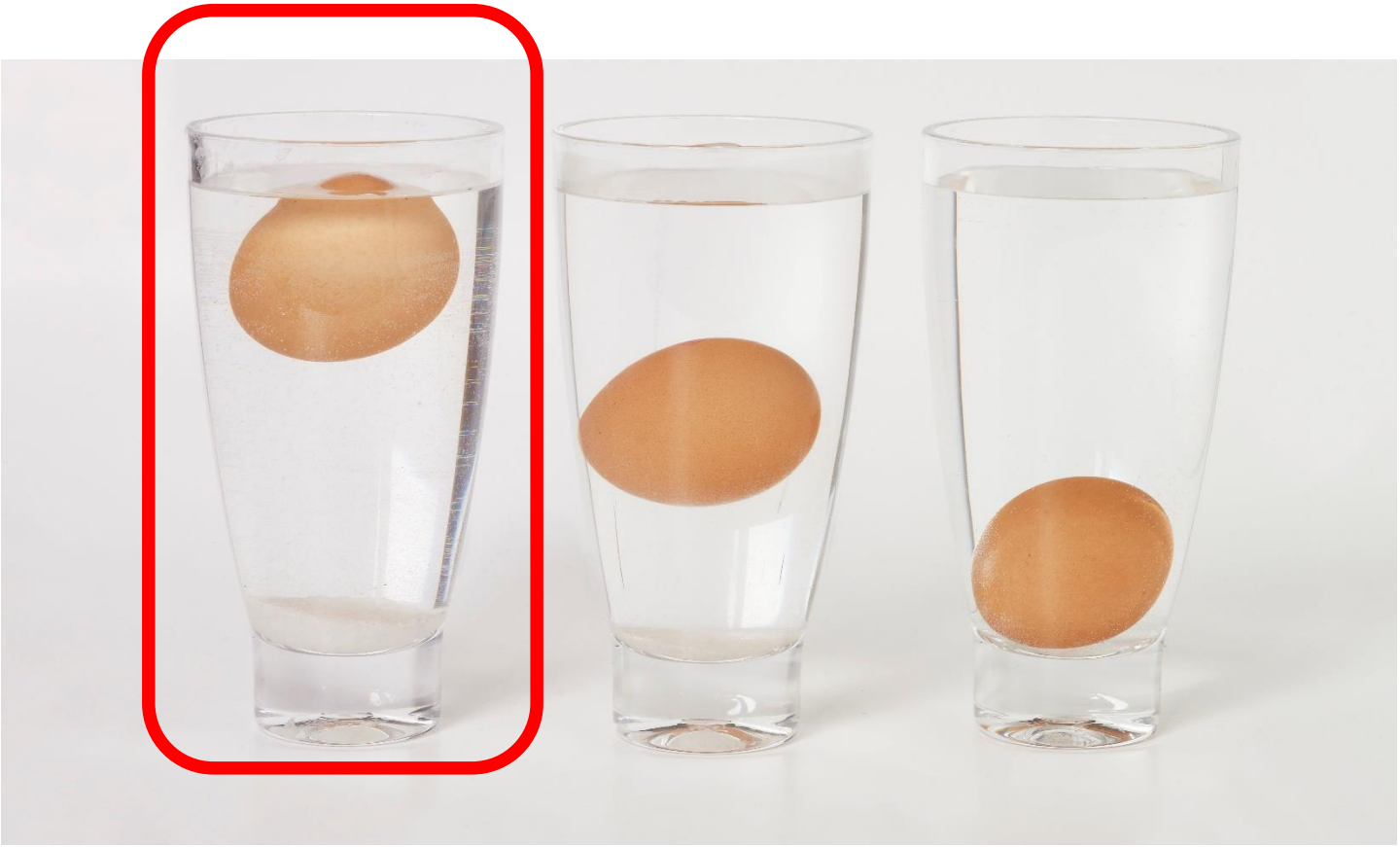
- Question: What is the density of the egg?
- Considerations
  - What determines whether something will sink or float on something else?
    - The less dense material floats on the denser material
  - Which data and calculations do you need to determine this?
    - The density of the salt water once the egg is floating just above the water

What does a floating egg look like?



Overview

- You and your partner should devise a way to add enough salt to the water to make the egg float and then determine the determine the density of the water. Make sure to use appropriate significant figures.
- Calculate the standard deviation using the class data.