Instructions (shown before students start the test)

Introduction (shown after students start the test)

Answer the following questions to the best of your ability.

1. (1.00 pts) https://www.simbucket.com/density/ (https://www.simbucket.com/density/)

Find the density of rubber through the use of the simulation.

- A) .25
- B) .75
- C) 1.1
- D) 1.6
- E) 2.0
- F) 2.5

2. (1.00 pts)

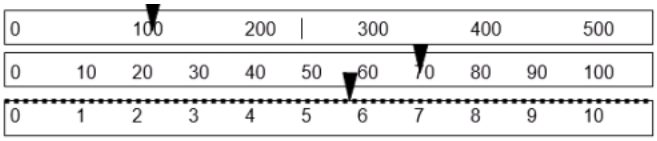
What is the total number of skittles?

3. (1.00 pts)

What is the number density of yellow skittles?

4. (1.00 pts)

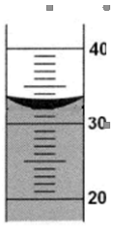
What is the number density of the purple skittles?



What is the mass of an object with the balance at these settings?

- A) 175 g
- B) 165.7 g
- C) 175.8 g
- D) 176.0 g

6. (1.00 pts)

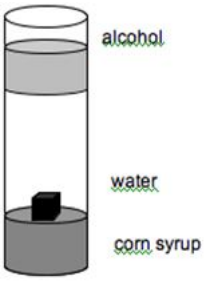


What is the volume of the liquid in this graduated cylinder?

- A) 30 ml
- B) 32 ml
- C) 34 g
- D) 40 ml

7. (1.00 pts)

Use the illustration on the below to answer the next two questions. It shows the densities of some common substances. The black cube is made of plastic.



Which substance is most dense?

- A) black cube
- B) alcohol
- C) water
- D) corn syrup

8. (1.00 pts) What do you know about the density of the black cube?

- A) it is less dense than the alcohol and the water
- B) more dense than corn syrup and water
- C) more dense than water, less dense than corn syrup
- D) more dense than corn syrup, less dense than water

9. (1.00 pts) If the mass of a cube were 48 g, and its volume 24 cm^3, what would its density be?

- A) .5 g/ cm^3
- B) 2 g/ cm^3
- C) 4 g/cm^3
- D) 6 g/cm^3

10. (1.00 pts) 90 mL of salt water has a mass of 120 g. What is the density of the salt water?

- A) .75 g/mL
- B) 1.3 g/mL
- C) 3.0 g/mL
- D) 9.0 g/mL

Make sure you have answered all the questions properly.