

Use the following passage to help you answer the following questions about ocean ecosystem:

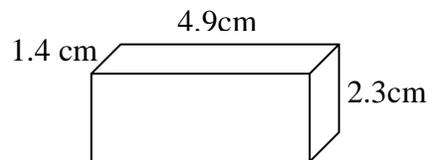
Fertilizer run-off from the land into the ocean can cause too much algae to grow on the leaves of sea grass and makes the sea grass die off. When sea slugs are present, they eat the algae and it allows the sea grass to grow larger and faster. Natural predators of the sea slugs are crabs. Natural predators of the crabs are sea otters. Scientists notice that when sea otters are present, the sea grass grows healthily. When sea otters are absent from the environment, the sea grass population declines.

To test if crabs have something to do with this, scientists designed an experiment where they simulated two different ecosystems. One ecosystem had crabs and no sea otters. The other ecosystem had crabs and sea otters. The results of this experiment showed that the sea grass grew faster and larger where the sea otters were present.

- 10) In the above experiment, what is the **Scientific Question** being investigated?
- 11) Identify the **manipulated variable** and the **responding variable** in the above experiment.
- 12) What did the scientist **conclude** from this experiment? **Explain** your answer. (*Remember you need to answer the question that the scientists were asking*)
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- 13) Calculate the **volume** of this **REGULAR** solid:

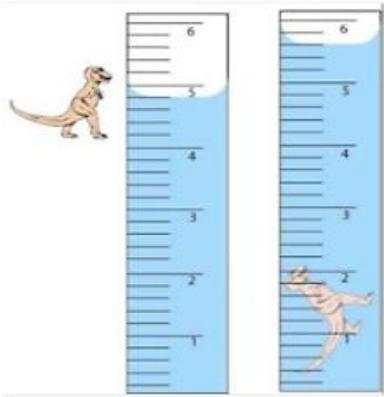
Volume of box =



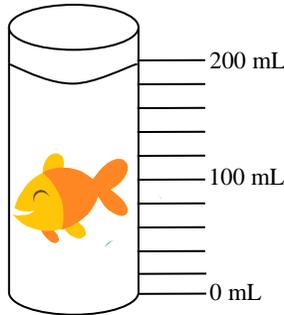
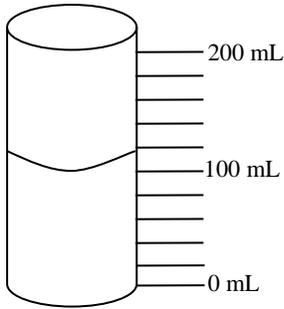
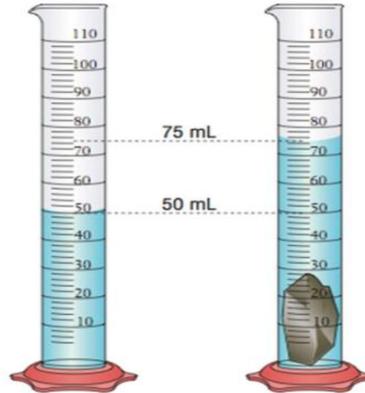
- 14) What is the **method** to determine the volume of an **IRREGULAR** solid called?
- 15) **Why** is a graduated cylinder called a **graduated cylinder**?
- 16) **Where** do you take the measurement when you use a **graduated cylinder**? (**hint**: it is the **curve** of the liquid)

17) Measure the volume of the following **IRREGULARLY** shaped solids:

Volume of the dinosaur =

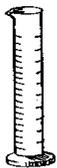


Volume of the rock =



Volume of the fishy =

18) Identify the following lab equipment:



19) For the following units, identify which of the fundamental measurements in science it is used for:

e) Centimeters (cm) = _____

e) Kilometers (km) = _____

f) Milliliters (mL) = _____

f) Pounds (lbs.) = _____

g) seconds (s) = _____

g) Joules (J) = _____

h) grams (g) = _____

h) Celsius (°C) = _____

20) What does, “measure twice, cut once” mean in the world of construction and home building?