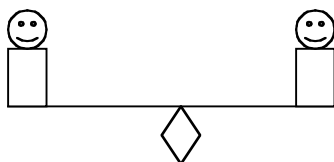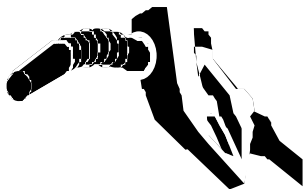For questions 1-6 read the description of the measurement in the right hand column. Decide whether the measurement should be measured in **meters, liters,** or **kilograms** and write your answer in the space

1. _____   Your own body mass.

2. _____   The volume of gasoline in a container.

3. _____   The length of a soccer field.

4. _____   The height of a ladder.

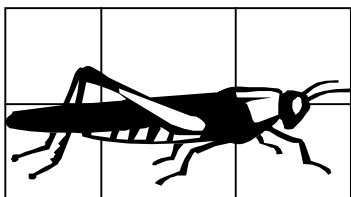5. _____   The mass of the contents of a cereal box.

6. _____   The volume of liquid in a soda bottle.
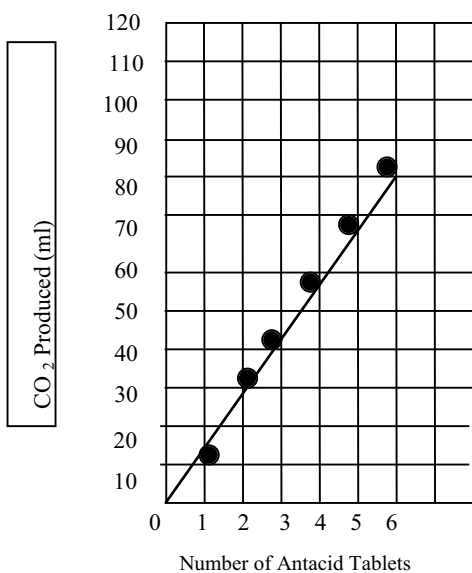
7. The diagram of the grasshopper is drawn to a scale of 1 block = 2 centimeters. What is the total length of the grasshopper?

Scale: 1 block = 2 centimeters (cm)

A. 1 cm

B. 2 cm

C. 3 cm
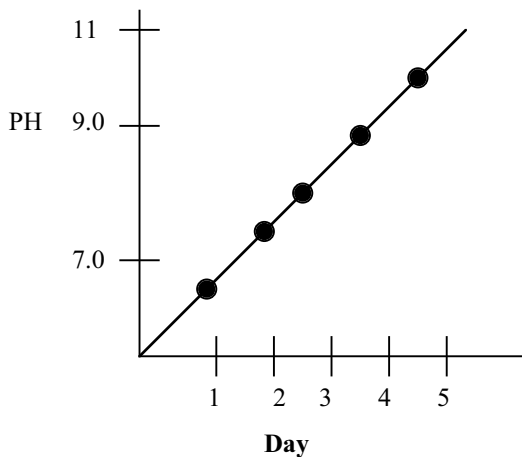
D. 6cm

Use the following graph to answer question 8>

Number of Antacid Tablets

8. How much CO_2 gas is produced by each antacid tablet?

    A. 15 mL

    B. 30 mL

    C. 45 mL

    D. 60 mL

Use the following Graph to Answer Question 9
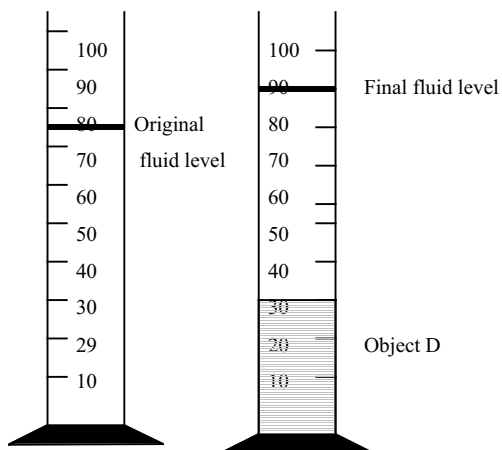
PH Levels of Decaying Leaves

9. What was the pH level on day 3?

    A. 3

    B. 3.5

    C. 7.5

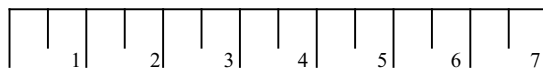   D. 8

Use the diagram below to answer question 10

10. What is the volume of object D?

    A. 90 cm

    B. 65 cm

    C. 30 cm

    D. 25 cm

11. What is the length, in centimeters, of the leaf from the tip to the end of the stem?

    A.   7.5

    B.   5.5

    C.   3.5

    D.   2.5

12. Identify the independent variable and the dependent variable.

Christina investigated how fast one year old Persian cats reacted to different whistles

Independent Variable (IV) _____

Dependent Variable (DV) _____

13. Identify the independent variable, dependent variable, and constraints.

Mario studied how far room temperature tap water would spurt out of a plastic milk carton when 3 mm holes were punched at different heights from the bottom of the container.

Independent Variable (IV) _____

Dependent Variable (DV) _____

Constants (C) _____

14. Identify the independent variable and dependent variable in this hypothesis.

If different motor oils are put in water, then they will float at different heights on the water.

Independent Variable (IV) _____

Dependent Variable (DV) _____

15. Identify the independent variable and dependent variable in this hypothesis

   If the number of twists of a rubber band is increased, then a toy propeller airplane will fly farther.

   Independent Variable (IV) _____

   Dependent Variable (DV) _____

16. Four sixth graders want to find out what height of a ramp causes a marble to roll the farthest. How should they set up the science experiment?

   A.   Set up the same ramp at different heights and use one marble.

   B.   Set up three different ramps at different heights and use one marble.

   C.   Set up the same ramp at the same height and use three different marbles.

   D.   Set up three different ramps at the same height and use three different marbles.

17. To conduct the marble and ramp experiment described in question number 16 above, which one of the following would provide the most useful data?

   A.   camera

   B.   balance

   C.   stopwatch

   D.   meter stick

18. Lamont is trying to make a decision about which of two skateboards to buy. He wants to buy the one that will five the longest ride off of a ramp. Which of the following would give the best data to help him make his decisions?

   A.   Give the wheels on each skateboard a spin and see which wheels spin for the longest time.

   B.   Ride each skateboard down a ramp to see which one takes him farthest.

   C.   Measure the length of each skateboard to see which is longest.

   D.   Weigh each of the skateboards to see which is heaviest.

Read the experiment described below to answer questions 19 and 20.

Susan wants to find out which kind of food her cat, Felix, likes best. For seven days, she sets out four plates of food at the same time of day. Each plate contains 200 grams of a different kind of cat food.

19. What is the best way for Susan to find out how much of each kind of food Felix ate?

A.   Subtract the number of grams left in each dish from the grams left in the bag.

B.   Add together all the remaining cat food on all four plates.

C.   Weigh the food remaining on each of Felix's plates after he eats.

D.   Vary the order in which she gives Felix each type of food.

20. Which of these is most important for Susan to keep the same during her experiment?

A.   The amount of each food given to Felix.

B.   The cost of each bag of food shy buys.

C.   The clothes she wears when feeding Felix.

D.   The store where she purchases each of the brands.

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