Record heart beat

Calculate how many heartbeats you have had in your lifetime. Using the heart rate you recorded in the beginning of class. (Note: we are assuming that your heart rate has been the same your entire life.)

*Voyager 2* traveled approximately 4.4 billion miles in 2.0 years.

What was *Voyager 2’s* average speed, expressed in km/s?

**Properties of Matter**

1. Which of the following is an example of a chemical property?

A. color C. the ability to rust

B. density D. phase

2. Which of the following is a chemical change?

A. water boiling C. burning paper

B. adding food coloring to water D. tearing a piece of paper

3. If the size of an object decreases, its density does what?

A. decreases C. increases

B. stays the same D. divides in half

4. In which stage do the particles move the slowest?

A. solid C. gas

B. liquid D. plasma

5. Which is an example of a mixture?

A. water C. salt water

B. vinegar D. borax

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6. Which is an example of a solution?

A. rice and water C. marbles and water

B. sugar and water D. sand and water

Choose one of the answers below for #7 through #14 (Answers will be used more than once!)

1. Physical Property C. Physical Change
2. Chemical Property D. Chemical Change

7. Phase or state of matter

8. Flammability

9. Rusting

10. Borax dissolving in water

11. Changes substances undergo when they turn into new substances.

12. Characteristics of a substance that can be observed without changing the identity of the substance.

13. Changes that do not result in new substances.

14. Properties that describe how substances change into other substances.

15. Substances with a definite shape and volume are in the \_\_\_\_\_\_\_ phase.

A. solid B. liquid

C. gas D. plasma

16. Substances with a definite volume but not a definite shape are in the \_\_\_\_\_\_\_ phase.

A. solid B. liquid

C. gas D. plasma

17. Which is an example of a compound?

A. Hg C. Na

B. Au D. NH3

**Useful conversion factors:**

**2.54 cm = 1 inch 5280 feet = 1 mile 7.48 gallons = 1 ft­3**

**454 g = 1 pound 1 mL = 1 cm­­­3 1 ton = 2000 pounds**

1. How many centimeters are in 17.0 miles?

2. How many inches are in 12.0 kilometers?

3. How many cubic inches are in 4.0 gallons?

4. How many pounds are in 4.25 kilograms?

5. What is the mass of 15.0 in3 of water? (Remember the density of water is 1.0 g/cm3.)

6. If you’re traveling at a speed of 65 miles per hour, how many seconds does it take to go 36 inches?

7. As you know, the density of water is 1.0 g/cm3. Convert that density to dg/m3