Mix and Flow of Matter
Topic 5 - Density Practice Quiz

1. An everyday situation, like a 'crowded' elevator, can represent the particle model, which helps us to visualize empty spaces between the particles. In this example a 'spacing box' is used in an elevator. Each person has their own individual 'spacing box'. The idea of spaces between the particles, in this example, helps us to understand the concept of density, if we consider ...

- ○ **A. the placement of the spacing boxes in the elevator**
- ○ **B. the type of spacing box used**
- ○ **C. the size of the spacing box**
- ○ **D. the number of spacing boxes**

2. The particles in a liquid cannot support the particles of a solid, unless ...

- ○ **the liquid is less dense**
- ○ **the liquid particles have less attractive force between them**
- ○ **the solid particles have more attractive force between them**
- ○ **the solid is less dense**

3. Which of the following statements best describes the correct difference, in terms of density?

- ○ **liquids are less dense than gases**
- ○ **gases are less dense than liquids**
- ○ **gases are more dense than solids**
- ○ **liquids are more dense than solids**

4. The following statement, " All liquids are less dense than all solids and more dense than all gases" was made by a Grade 8 student. Which of the following substances proves this student's statement to be incorrect?

- ○ **mercury**
- ○ **wood**
- ○ **iron**
- ○ **helium**

5. The formula for density is **Density = Mass / Volume**. If a substance has a volume of $100cm^3$ and has a mass of 1932 grams, what is the density of the substance?

- ○ **$193.20\ g/cm^3$**
- ○ **$19.32\ g/cm^3$**
- ○ **$1.932\ g/cm^3$**
- ○ **$0.1932\ g/cm^3$**

Check Answers

Mix and Flow of Matter

Topic 5 - Density Practice Quiz (Answers)

1. An everyday situation, like a 'crowded' elevator, can represent the particle model, which helps us to visualize empty spaces between the particles. In this example a 'spacing box' is used in an elevator. Each person has their own individual 'spacing box'. The idea of spaces between the particles, in this example, helps us to understand the concept of density, if we consider ...

X **A. the placement of the spacing boxes in the elevator**

X **B. the type of spacing box used**

◉ **C. the size of the spacing box (Text p. 50) This would determine how many boxes would fir in the elevator and therefore would show how dense the elevator is.**

X **D. the number of spacing boxes**

2. The particles in a liquid cannot support the particles of a solid, unless ...

X **the liquid is less dense**

X **the liquid particles have less attractive force between them**

X **the solid particles have more attractive force between them**

◉ **the solid is less dense (Text p. 51) The particles of the liquid has a stronger attractive force so the solid floats on top of the liquid**

3. Which of the following statements best describes the correct difference, in terms of density?

X **liquids are less dense than gases**

◉ **gases are less dense than liquids (Text p. 51) In general, gases are less dense than liquids**

X **gases are more dense than solids**

X **liquids are more dense than solids**

4. The following statement, " All liquids are less dense than all solids and more dense than all gases" was made by a Grade 8 student. Which of the following substances proves this student's statement to be incorrect?

◉ **mercury (Text p. 52) Mercury is a liquid and is one of the most dense substances known**

X **wood**

X **iron**

X **helium**

5. The formula for density is **Density = Mass / Volume**. If a substance has a volume of $100cm^3$ and has a mass of 1932 grams, what is the density of the substance?

X **$193.20\ g/cm^3$**

◉ **$19.32\ g/cm^3$** **(Text p. 57) 1932/100=19.32**

X **$1.932\ g/cm^3$**

X **$0.1932\ g/cm^3$**