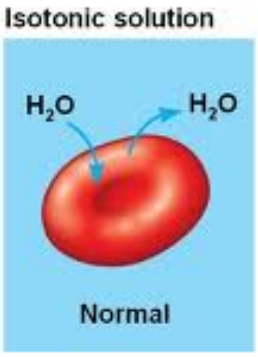
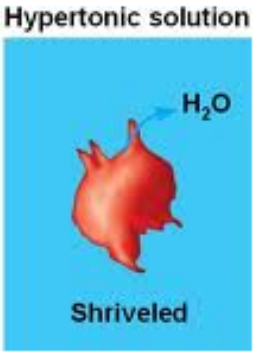
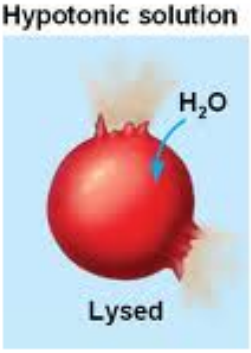
Name _____ **Date** _____ **Period** _____

Biology Homework 1-4.3 Osmosis

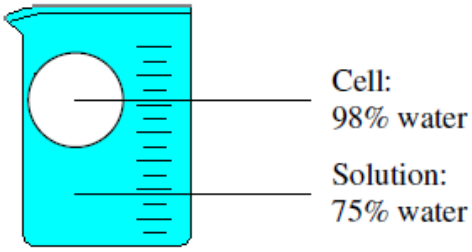
Use your **journal** as a reference tool in addition to the information provided below. Circle your answer choices and justify your answers.

Osmosis - The diffusion of water across the cell's membrane		
Osmotic Solution	**Movement of Water**	**Impact on Cell Size**
Isotonic Solution The concentration of solutes is equal inside and outside the cell.		The cell remains the same.
Hypertonic Solution The concentration of solutes is higher outside the cell.		The cell shrinks.
Hypotonic Solution The concentration of solutes is lower outside the cell.		The cell swells.

1. If a saltwater fish (90% water) is placed in fresh water (100% water), water will likely move into the fish cells and kill the fish. This is most like due to _____.
   a. facilitated transport
   b. osmosis
   c. endocytosis
   d. exocytosis

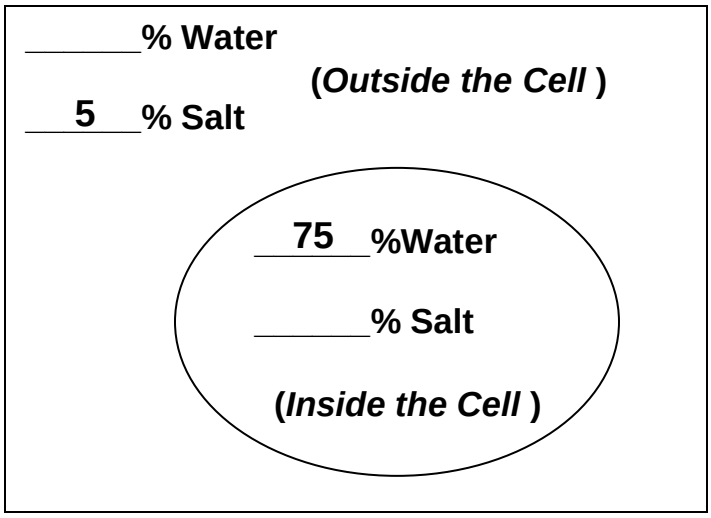
2. Placing wilted lettuce in cold water will make it crisp again. Which statement best describes what happens to restore the lettuce to its original condition?
   a. Water leaves the lettuce cells by diffusion.
   b. Water enters the lettuce cells by osmosis.
   c. Osmosis causes salts to enter the lettuce cells.
   d. Salt in the lettuce cells cause water to leave the cells.

3. If the cell in the beaker is permeable to only water, the cell will probably _____.
   a. grow and possibly explode
   b. shrink
   c. stay the same



4. A solution that has a greater solute concentration than a cell is a _____ solution.
   a. hypertonic
   b. hypotonic
   c. isotonic
   d. heterogenous

5. Fill in the blanks in the spaces below and then answer the questions about this osmotic solution.



Where is the higher concentration of solute?

Where is the higher concentration of water?

Which direction will the water move?

What type of osmotic solution is shown?