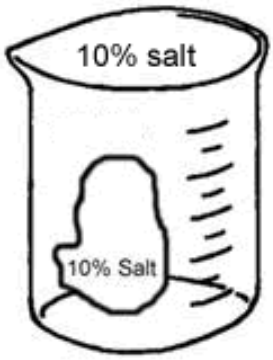
Name: _____ Date: _____ Period: _____

Evidence 4: Homeostasis Regular

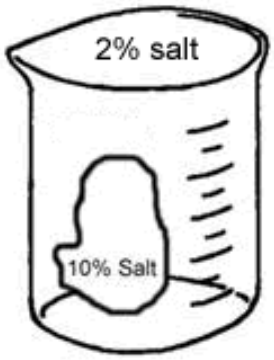
Option 2: Diagrams

Now, let's practice:

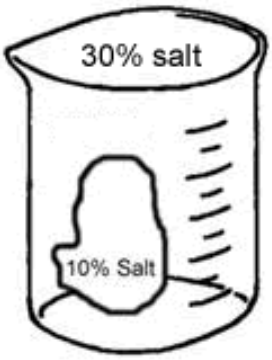
For the three beakers below, draw an arrow to indicate which way water will travel and then identify what type of solution the cell was placed in.



A. _____



B. _____



C. _____

What will happen to:

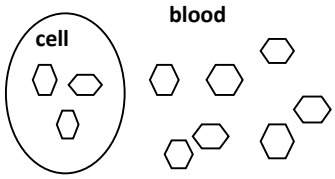
Cell A:

Cell B:

Cell C:

After digestion of a carbohydrate:

= glucose molecule



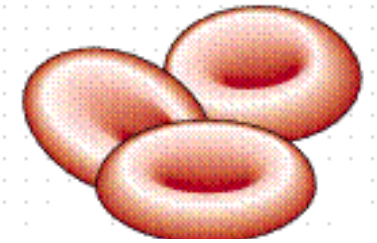
a. Which side has the higher concentration of glucose?

b. Which way will the glucose go?

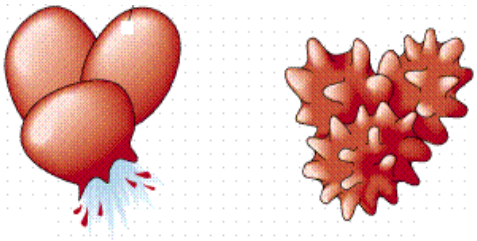
c. Does this require energy?

d. Is this active or passive transport?

The image below shows red blood cells in an isotonic solution of 1.5% salt.



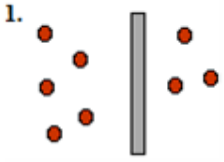
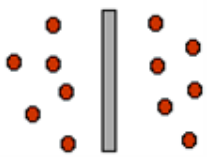
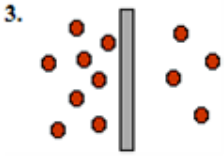
Circle the image below that would best represent blood cells exposed to a 0% salt solution.



What type of solution was the blood cell placed in?

What would happen to the cell if it were placed in a 10% salt solution?

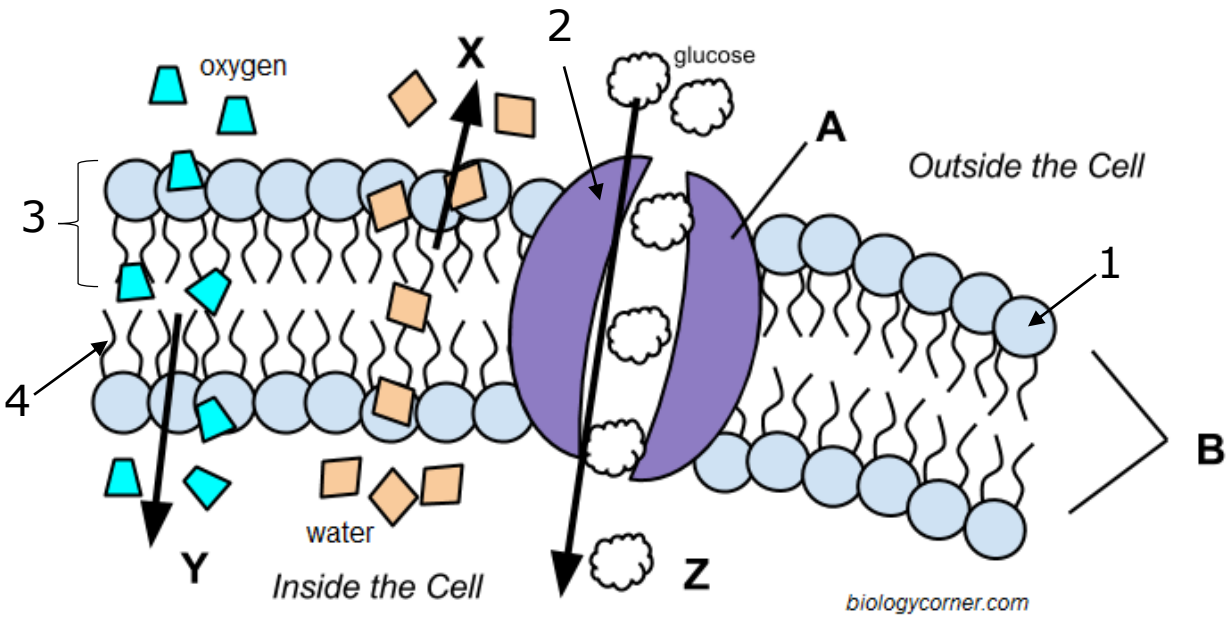
*Observe the diagrams in the table below. Assume that the dots are dissolved particles on either side of the cell membrane. They are like **oxygen** molecules that can go across the membrane. Do the following situations represent concentration gradients? If so, in which direction would **diffusion** occur?*

1. 	2. 	3. 
gradient? Yes or No	**gradient? Yes or No**	**gradient? Yes or No?**
movement **left, right, or none**	movement **left, right, or none**	movement **left, right, or none**

Are the following hypotonic, hypertonic, or isotonic solutions? Which way will water mostly move? **(some situations may have water moving equally)**

intracellular fluid *(inside the cell)*	***extracellular fluid*** *(outside of the cell)*	***Hypotonic, Hypertonic, Isotonic***	*water moves mostly* ***inside*** *or* ***outside*** *the cell*
5% salt	10% salt		
10% salt	10% salt		
3% glucose	1% glucose		
2% protein	1% protein		
9% salt	9% salt		
13% water	25% water		

Cell Membrane and Transport



Name the following structures and explain their function:

#1_____ -

#2_____ -

#3_____ -

#4_____ -

Match the structure/process to the *letter*:

1. Phospholipid bilayer ____
2. Osmosis _____
3. Simple Diffusion ____
4. Facilitated Diffusion _____
5. Channel protein ____

6. This cell would be in a [hypertonic / hypotonic / isotonic] solution.
7. All of the processes in the image are examples of [active / passive] transport.
8. The cell membrane can be described as [semi-permeable / impermeable]
9. There is more glucose [inside / outside] the cell. (Hint: Look at the direction it is moving)
10. Over time, this cell will [shrink / swell]