

NAME: _____ DATE: _____

HEARTBEAT AND CIRCULATION

1. Use the following words to complete the table.

LEFT ATRIUM RIGHT ATRIUM LEFT VENTRICLE RIGHT VENTRICLE

- a. heart chambers that receive blood _____ and _____
- b. heart chambers that receive deoxygenated blood from body cells _____ and _____
- c. heart chambers located at the top half of the heart _____ and _____
- d. heart chambers that receive oxygenated blood from lungs _____ and _____
- e. heart chambers that pump blood away from heart _____ and _____
- f. heart chambers located at the bottom half of the heart _____ and _____

2. Drag the following words into the correct order to show the pathway of blood through each half of the heart. The first ones are done for you.

RIGHT ATRIUM	LEFT ATRIUM	LEFT VENTRICLE	BICUSPID VALVE
RIGHT VENTRICLE	PULMONARY ARTERY	VENA CAVA	PULMONARY VEIN
AORTIC VALVE	TRICUSPID VALVE	AORTA	PULMONARY VALVE

RIGHT SIDE:

VENA CAVA → _____ → _____ → _____ → _____ → _____

LEFT SIDE:

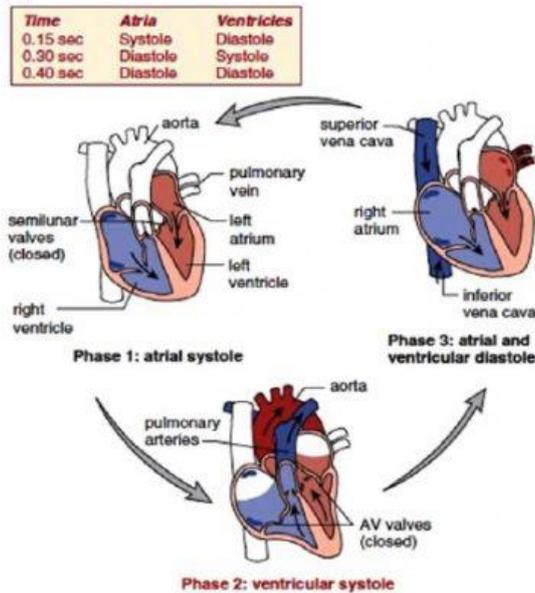
PULMONARY VEIN → _____ → _____ → _____ → _____ → _____

- 3. The function of the valves in the heart are to ensure that B _____ flows in only one D _____.
- 4. The heart beats when the heart muscles C _____ and R _____. The heart sounds heard (lub-dub) are the sounds made when the V _____ of the heart close and blood hits them.
- 5. Systole occurs when the muscles of the heart C _____ and P _____ blood out.

Diastole occurs when the muscles of the heart R_____ so the heart chambers can F_____ up with blood.

6. The pacemaker is responsible for S_____ the heartbeat.

7. The cardiac cycle is a period from the beginning of one heart beat to the beginning of the next one. State the three phases of the heartbeat (cardiac cycle).



a. The A_____ and V_____ are initially in a resting state called D_____.

b. The atria contract first to push blood down into the V_____. This is called Atrial S_____. The atria then R_____ as the ventricles contract forcing blood up and out of the H_____. This is called V_____ Systole. The heart then relaxes and the cycle starts again.

c. Look at the times for each stage of the heartbeat on the diagram above. How long does a single heartbeat last when a person is at rest as is shown in the diagram?

_____ seconds

d. How many heartbeats would this person at rest experience in 1 minute? (*answer to the nearest whole number*)

_____ heartbeats