

## 1: How Big Is Your Heart? | QuizDoo

*A healthy human heart is about the size of your fist. It lies behind and to the left of your breastbone or sternum. This animation shows where your heart is located and how it functions.*

In summary, the area of our heart is given by, 4. How good is our model? We perform Monte Carlo simulation for various values of  $r$  and  $l$ , and take the resulting areas to be the truth. They are as close as we can get to the exact values. We compare the areas predicted by our model to those produced by Monte Carlo simulation. With simulations, we get the following: Area predicted by our model Area produced by Monte Carlo simulation Absolute error between the two areas We see that the area predicted by our model coincides with that from Monte Carlo simulation well, both in terms of the graph and the absolute error. The absolute error, which lingers in the hundreds sometimes over 1, seems large. However, relative to the area, it is not. When the radius is  $r$ , Monte Carlo says that the area is around 35, Compared to this, an absolute error of 1, is quite small 2. We also notice that the results from Monte Carlo simulation are less consistent when the radius is large. We can counteract the size effect by running more simulations for large radii and to be safe large ear lengths. That is, we allow  $N$  to be a function of the parameters and: The number tells us the factor by which we increase the base number of simulations. I have designed so that we do not need additional simulations when the radius or ear length is 0, and gradually increase the number of additional simulations as we increase the radius or ear length. With this simple change, we get better looking results: Area produced by Monte Carlo simulation variable  $N$  Absolute error between the two areas variable  $N$  5. Conclusion Over the last four posts, we studied what Monte Carlo simulation is and how we can use it to solve various problems. Our journey in understanding math has only just started.

### 2: Human Heart: Anatomy, Function & Facts

*Connect science and math by exploring your own heart.*

Case Study - Case Study: How Big is Your Heart game for Roswell Park published Roswell Park Cancer Institute is a medical institute in Buffalo, New York, that specializes in developing new medicines and technologies for cancer treatment. In , Roswell Park launched the Yroswell program to promote cancer awareness among millennials, and future professionals and supporters. The game is an excellent tool to educate people and share information. Yroswell Program The Yroswell program is made up of activities and events to inspire young people to help build a world without cancer. Designed to connect with millennials, the Yroswell production features cancer patients, dancing alongside nurses and trained dancers. Yroswell was created to sponsor and support activities and events that represent three goals: It features programs and events from the cancer awareness campaign. The objective of the game is simple. For 30 seconds, players must increase the size of their in-game heart by tapping only the logos and symbols from Yroswell. Before the game begins, players are introduced to the different items that they must collect. During this presentation, tapping any Yroswell item will prompt a short description of its corresponding program or event to appear. The next presentation displays items that represent the leading causes of cancer. Hitting these bad items, during the game, will reduce the size of the in-game heart. Below is a short demonstration of the game: This technology is the modern standard for creating and displaying content on the World Wide Web. Anyone with a computer device and a modern web browser can access the game easily. Furthermore, HTML5 not only allows highly engaging games to be developed but also integrates other functions, like registration forms and leaderboards, into a game. In order to join the raffle, interested players can fill in their name, email, and telephone number to the contact form found at the end of the HTML5 game. Having a registration or contact form is another great way of generating potential supporters. By compiling registered players, an organization can search for aspiring donors and volunteers. Summary HTML5 games provide a great venue for sharing information and inspiring advocacy. During gameplay, the game briefly informs its players about the different Roswell Park events and programs. It also implements a registration model to invite potential supporters to join the fight against cancer. Developing this game for Roswell Park is another great milestone for us. This experience has given us an insight that HTML5 games, no matter how casual they may be, can make a difference to our community. We operate a B2B marketplace for other companies and brands to license high quality games. We help companies reskin or rebrand existing games from our portfolio. We design and develop bespoke games for brands, which include advergames , lead generation games , newsgames , and social impact games We develop game solutions for taxis, airlines, hospitals, schools and more. We build playable ads for app and gaming companies How to reach us.

### 3: Heart Valve Size & Diameter

*Question 6/10 You're walking down the sidewalk when a panhandler asks you for change. You ignore them and keep walking Drop some change in their cup.*

By Adam Pick on October 31, I just received a fantastic question. Consider that we are all different. We have different heights, different weights, different eyes, different hair, different teeth and different ears. The same holds true for our heart valves. That said, we can make assumptions about ranges of heart valve sizes by looking at a human heart diagram that is closely drawn to scale. To see a heart diagram, [click here](#). However! From our research, we know that the tricuspid valve and the mitral valve are roughly about the same size in a human heart. And, we know that the pulmonary valve and the aortic valve are about the same size. Now, it comes down measurements of heart valve size. Again, I have scrubbed the web looking for ranges of heart valve size. I have found some data. But, I have yet to find anything that details just how big or little heart valves can be. If you have any thoughts please leave a comment in my feedback section below. As you can see, the size of a dime is roughly the size of an aortic valve replacement. FYI, this is a new catheter-based aortic valve replacement. So there you have it!!! Well, at least for an aortic and pulmonary valve. A dime, by the way is 2. That measurement is the surface area of the dime. For more specific data about the normal size of an aortic valve, please [click here](#). But remember, there is a lot of variance of heart valve size. I hope this helps you understand more about heart valve size.

### 4: Heart: Facts (Science Trek: Idaho Public Television)

*How big is your heart? They say it's not the size of the dog in the fight but the size of the fight in the dog. They say it's not the size of the man but the size of his HEART that counts.*

Facts Every second of every day something incredible happens inside your body. Where is your heart? Your heart is in the center of your chest. Your heart is not right under your skin but lies behind your breastbone, inside your ribcage and between your lungs. Take a closer look its anatomy. How big is your heart? The heart is about the size of your fist. When you were a baby it was the size of your baby fist. What does the heart look like? The heart is a muscle, just like the other muscles in your body!! It weighs about a pound, or less than half a kilogram. The atria receive blood from the body and the lungs, and the ventricles pump blood back out, first to the lungs and then to the body. Read more about heart chambers , then label the heart parts. What does the heart do? This muscle, which beats at about 70 times a minute, pumps blood in a one-way path around your body through blood vessels. The heart and the vessels together are called the circulatory system. The heart valves stop blood from flowing the wrong way. The heart pumps thousands of liters of blood through your body every day. Blood is pumped out of the heart in two directions. First it sends blood without any oxygen from the right ventricle to the lungs to get oxygen. After the oxygen-filled blood comes back to the heart to the left atrium it is pumped from the left ventricle to all the other parts of the body. After delivering its oxygen, the blood returns to the heart to the right atrium to start the process of getting oxygen all over again. Watch your blood flow through the heart. What do the valves do? Between the chambers there are valves which stop blood from flowing the wrong way. The valves open and close and help to move blood through the heart to the right place at the right time. When the valves open, blood surges into the chambers. The valves close, the heart contracts, and the blood flows out. Follow the arrows as blood flows through the heart. For another view, watch this demonstration. About your Heart Beat The human heart beats over two and a half billion times in a lifetime. As you grow, your heart rate slows. By the age of 18, the heart rate is about 70 beats per minute. Listen to the heartbeat sounds of a heart at rest and after exercising. During exercise, more oxygen and nutrients are needed by the muscles, so blood must be delivered faster than when the body is resting. To meet these demands, the heartbeat increases. You can find your heartbeat. There are places on your body where you can feel your pulse, the beat of blood as it rushes through your veins and arteries. Your wrist is a good place to try. Are all hearts the same? Did you know that all vertebrate hearts are not the same? A mammal heart is different from a fish heart, for example, even though both mammals and fish are vertebrates. Birds and mammals humans are mammals have a 4-chambered heart that separates oxygen-rich and oxygen-depleted blood. Fish have a 2-chambered heart. Amphibians have a 3-chambered heart with two atria and one ventricle. Some reptiles have a partial separation of the ventricle but others have a 4-chambered heart. Who knows about the heart? A Cardiologist is the special doctor who knows about the heart and circulatory system, and about its functions and diseases. Read about the Milestones in Cardiology. While there have been many medical breakthroughs in treatments of heart disease, including surgery and transplants, a large number of people still die from heart-related illnesses each year. Watch an Open Heart Surgery Movie. About , people die of heart disease in the United States each year. The average age for a first heart attack is about 65 for men and 72 for women. About , people in the U. Of those, about , die. Learn about heart attacks. What can you do to keep a healthy heart? Those who are at a higher risk of suffering a heart attack or stroke brain attack are those who are overweight, are smokers, have high cholesterol, high blood pressure hypertension , or diabetes. Follow these Simple 7 steps to have a healthy heart for the rest of your life. Click on a Topic:

### 5: How Big Is Your Heart?

*Have You Ever Wondered How Big Your Heart Was? Do You Care a Lot About Other People or Are You More a Bit of a Grump? Wanna Know? If So, Take This Quiz!!*

March 22, Dreamstime The human heart is an organ that pumps blood throughout the body via the circulatory system, supplying oxygen and nutrients to the tissues and removing carbon dioxide and other wastes. The human heart is about the size of a fist. The right atrium and right ventricle together make up the "right heart," and the left atrium and left ventricle make up the "left heart. A double-walled sac called the pericardium encases the heart, which serves to protect the heart and anchor it inside the chest. Between the outer layer, the parietal pericardium, and the inner layer, the serous pericardium, runs pericardial fluid, which lubricates the heart during contractions and movements of the lungs and diaphragm. The outermost wall layer, or epicardium, is the inner wall of the pericardium. The middle layer, or myocardium, contains the muscle that contracts. The inner layer, or endocardium, is the lining that contacts the blood. The tricuspid valve and the mitral valve make up the atrioventricular AV valves, which connect the atria and the ventricles. The pulmonary semi-lunar valve separates the right ventricle from the pulmonary artery, and the aortic valve separates the left ventricle from the aorta. The heartstrings, or chordae tendinae, anchor the valves to heart muscles. The sinoatrial node produces the electrical pulses that drive heart contractions. Human heart function The heart circulates blood through two pathways: In the pulmonary circuit, deoxygenated blood leaves the right ventricle of the heart via the pulmonary artery and travels to the lungs, then returns as oxygenated blood to the left atrium of the heart via the pulmonary vein. Of course, the heart is also a muscle, so it needs a fresh supply of oxygen and nutrients, too, Phillips said. The cardiovascular system circulates blood from the heart to the lungs and around the body via blood vessels. The left main coronary artery, on one side of the aorta, branches into the left anterior descending artery and the left circumflex artery. The right coronary artery branches out on the right side of the aorta. A heart attack is distinct from cardiac arrest, which is a sudden loss of heart function that usually occurs as a result of electrical disturbances of the heart rhythm. A heart attack can lead to cardiac arrest, but the latter can also be caused by other problems, he said. The heart contains electrical "pacemaker" cells, which cause it to contract "producing a heartbeat. In people with an irregular heartbeat, or atrial fibrillation, every cell tries to be the band leader, he said, which causes them to beat out of sync with one another. A healthy heart contraction happens in five stages. In the first stage early diastole , the heart is relaxed. Then the atrium contracts atrial systole to push blood into the ventricle. Next, the ventricles start contracting without changing volume. Then the ventricles continue contracting while empty. Finally, the ventricles stop contracting and relax. Then the cycle repeats. Valves prevent backflow, keeping the blood flowing in one direction through the heart. Facts about the human heart A human heart is roughly the size of a large fist. The heart weighs between about 10 to 12 ounces to grams in men and 8 to 10 ounces to grams in women. The heart beats about , times per day about 3 billion beats in a lifetime. An adult heart beats about 60 to 80 times per minute. The heart pumps about 6 quarts 5. The heart is located in the center of the chest, usually pointing slightly left.

### 6: Case Study: How Big is Your Heart game for Roswell Park - MarketJS Case Study

*You may not yet have a big heart of gold, but you do have a heart of silver! You are friendly, but not in an overwhelming sort of way. You know how to put others before yourself, but you also know that sometimes, you need to think about yourself first.*

How big is your heart? The beating heart continuously pumps blood throughout the body. Blood supplies oxygen and nutrients to the body. In adults, a normal, healthy heart weighs less than a pound and is slightly larger than a fist. It lies behind and to the left of your breastbone or sternum. This animation shows where your heart is located and how it functions. From the time you are a child and throughout your life, your heart remains about the size of your balled-up fist. Inside your heart, there are four chambers. You have two atria stacked on the top of two ventricles. Each of the atria is paired with a ventricle. A wall separates them into two different shafts. On each side of the heart, blood enters the upper atrium and then goes through a valve into the ventricle, exiting through another valve on the way out of the heart. When your heart beats, an electrical signal passes from the top of your heart, near the atria, down through your ventricles and chamber contracts, in that order. When the upper atria contract, the atrioventricular valves - sandwiched between the atria and the ventricles - open, and the blood in each atrium flows through its valve down into a ventricle. The valve to the left ventricle -- where oxygenated blood is coursing through - is called the mitral valve. The valve on the right side - where oxygen-depleted blood is passing into the right ventricle - is known as the tricuspid valve. Once both ventricles fill with blood, the atrioventricular valves shut, keeping the blood from flowing back into the atria. The shutting of the atrioventricular valves creates the first sound of your heartbeat -- "Lub! While the atria relax, the ventricles contract. Now, a second set of valves open. These valves lead out of the ventricles - as exit doors from the heart. The semilunar valves direct blood to its next destination. The oxygen-depleted blood in the right ventricle leaves the heart through the pulmonary valve. That valve connects to the pulmonary artery which leads to the lungs. Oxygen-rich blood in the left ventricle, at the same time, departs through the aortic valve. Once the passing electrical current contracts the ventricles, the blood in the ventricles is forced out through the open semilunar valves. When they slam shut, you hear the second half of your heartbeat- "Dub! Your heart is at the center of the system, acting as a pump to distribute nutrient- and oxygen-rich blood t Signs of poor circulation include cold hands and feet, numbness, dizziness, migraines, varicose veins and pain in your feet or legs. Untreated, poor circulation can lead to stroke, high blood pressure, kidney damage and other diseases. Learn more about your heart and circulatory system with expert advice from Sharecare.

### 7: How big is your heart

*Well, I just chill with friends. Go to their place, maybe 7/ You know, just where ever as long as we can hangout and have some fun.*

### 8: How big is your heart? | Heart and Circulatory System - Sharecare

*Is your heart too big? While HCM often develops during puberty and is usually undetectable in childhood, its symptoms can present at any age or not at all. The good news is that most people.*

### 9: How Big Is Your Heart | Lead Like Jesus

*Every day, your heart beats about 100,000 times, sending 2,000 gallons of blood surging through your body. Although it's no bigger than your fist, your heart has the mighty job of keeping blood.*

*Australian Bankruptcy Act 1966, with regulations and rules, also includes forms, Charges Acts, index. Systematic approaches to solving problems. Building of the human city Who thought this was a good idea A Newspapermans Newspaperman Billy y las botas graphic novel The Tower (American Theater in Literature) Death becomes them The Dark Lords demise Urban development in Australia Ickworth, Suffolk Dissenting Electorate My Sister, My Sorrow Illustrated guide to shrimp of the world Importance of descriptive research It Begins with Tears From tyranny to anarchy Principles of fracture management Chris Harris Uncertain passage: Chinas transition to the post-Mao era Young Frederick Douglas Colloquial Latvian XXV. Of the Fifth Help of the Human Will 242 Tarot Of The White Cat What is a chemical reaction Play a Swiss teams of four with Mike Lawrence The moral nature of law. THE GODWIN SIDEBORD (Tim Simpson Mystery) Iris johansen devils triangle Witchcraft in Scotland Thomas Guide 2001 Northern Virginia and the Beltway Migrants and Identity in Japan and Brazil 65 Birdhouses and Bird Feeders Crash course Excel 97 Start now in watercolour Cognitive perceptual considerations Colin Wilson Terrorism development The reliability of an assay for 2-5A synthetase Westminster Abbey re-examined. Encyclopedia of North American Indian tribes Lets go outside!*