

The following text is for question 1 and 2

The most common causes of tsunamis are underwater earthquakes. To understand underwater earthquakes, you must first understand plate tectonics. The theory of plate tectonics suggests that the lithosphere, or top layer of the Earth, is made up of a series of huge plates. These plates make up the continents and seafloor. They rest on an underlying viscous layer called the asthenosphere.

Think of a pie cut into eight slices. The pie crust would be the lithosphere and the hot sticky pie filling underneath would be the asthenosphere. On the Earth, these plates are constantly in motion, moving along each other at a speed of 1 to 2 inches (2.5-5 cm) per year. The movement occurs most dramatically along fault lines (where the pie is cut). These motions are capable of producing earthquakes and volcanism, which, when they occur at the bottom of the ocean, are two possible sources of tsunamis.

When two plates come into contact at a region known as a plate boundary, a heavier plate can slip under a lighter one. This is called subduction. Underwater subduction often leaves enormous "handprints" in the form of deep ocean trenches along the seafloor. In some cases of subduction, part of the seafloor connected to the lighter plate may snap up suddenly due to pressure from the sinking plate. This results in an earthquake. The focus of the earthquake is the point within the Earth where the rupture first occurs, rocks break and the first seismic waves are generated. The epicenter is the point on the seafloor directly above the focus.

When this piece of the plate snaps up and sends tons of rock shooting upward with tremendous force, the energy of that force is transferred to the water. The energy pushes the water upward above normal sea level. This is the birth of a tsunami. The earthquake that generated the December 26, 2004 tsunami in the Indian Ocean was a 9.0 on the Richter Scale - one of the biggest in recorded history.

1. Which of the following best states the topic of this text?
 - A. The birth of a tsunami
 - B. The magnitude of tsunamis
 - C. Tsunamis in the Indian Ocean
 - D. Series of huge plates on earth
 - E. Lithosphere and asthenosphere
2. The main idea of text is that...
 - A. a deep ocean trench is a result of an earthquake
 - B. the energy of subduction can lead to earthquakes.
 - C. plate tectonics lead to an earthquake and volcanism
 - D. tsunamis in the Indian Ocean are the biggest in the history,
 - E. strong movements of undersea fault lines cause tsunamis



The following text is for question 3 and 4.

Although photography was first made public in 1839, the theory behind the principles of the medium begins with Aristotle's description of how light waves behave when projected through a small aperture. This is fundamentally the description of how a lens or camera's aperture operates when projects an image onto the film at the back of a camera in the Middle Ages, Alhazen and Francis Bacon extended the principle to include a large, darkened room with a small opening in one wall in the 15 to 18 centuries this camera obscura, as it came to be called, was reduced in size and made convenient for artist to use in tracing scenic design and architectural perspective.

10 The chemical principles basic to photography were also described well before photography was "invented" Johann Schutze in 1727, demonstrated that silver salts turned dark when exposed to light. Carl W. Scheele, in 1777, showed that ammonia retarded the effects of light, and he indicated a possible way of stabilizing the photochemical process. By the end of the 18 century, the necessary equipments (the camera obscura) were available at least to produce semipermanent photographic images

The artistic style and aesthetics of Renaissance and post-Renaissance Europe placed a high value on a naturalistic rendering of nature and thus legitimized the use of machines like camera obscura by artist. By the mid-18th century, a public demand had made itself for realistic portraits, which was partially satisfied by experiments in the automatic permanent recording of portrait silhouettes on photo sensitive paper. Two imperatives the need for perspective accurate landscape and architectural scenes and for objectively truthful portraits - created a climate for certain types and styles of pictures that after 1839, would be achieved easily by photography

3. Which is most like the topic of the paragraph following this text?
 - A. Portraits of inanimate objects
 - B. Process of publishing portraits
 - C. Photographer's status in society,
 - D. More recent photography application
 - E. Photography as an exclusive form of art

4. What is the main idea of paragraph 1 ?
 - A. A lens projected image onto the camera film.
 - B. Aristotle discovered the wonder of light waves
 - C. Alhazen and Francis Bacon were the dark room inventors
 - D. Camera obscura used to be enormous before it was reduced in size
 - E. The initial idea of photography came up long before it was publicized,



5. Read the following text and answer the question!

Scientists are as obsessed with the question of why the superold survive and thrive as Ponce de Leon was to find the Fountain of Youth. They want to understand why the Japanese island of Okinawa are home to the world's largest population of centenarians with almost 600 of its 1.3 million inhabitants living into their second century-many of them active and looking decades younger than their actual years. Like weekend visitors on the summer ferry to Martha's Vineyard

scientists and sociologists block the boats to Sardinia and Nova Scotia, Canada, to see why those craggy locales hide vast clusters of superold

As well as studying these populations intensively to unlock their secrets, scientists have also taken a hard look at the very old in the US most notably in the New England Centenarian Study, led by Dr. Thomas Perls, a geriatrician at Boston University. While the very old are happy to offer homespun explanation for their longevity. I never took a drink I drank a shot of whiskey everyday experts are trying to unravel and understand the biological factors that allow some people to reach 100 while other drops off in their 70s or 80s. Researchers are particularly interested in determining which factors allow up to 20% of those who reach 100 to do so in sufficient mental and physical health a whopping 90% of centenarians, according to Perls, remain functionally independent up to age 92.

It is pretty obvious even to nonscientists that how you get there depends partly on the genes you are born with on lifestyle what and how much you eat where you live and what types of stress and trauma you experience depends on each factors, though, was unknown until Swedish scientists tackled the problem. They found that the only set of people who share genes but not lifestyle: identical twins that were separated at birth and whose genes were most important, you would expect the twins to die at about the same age. In fact they found average difference convinced the scientists that only about 20% to 30% of how long we live genetically determined. The dominant factor is lifestyle.

Which of the following best expresses the main idea of the text?

- A. The population of the elderly people is increasing
- B. Elderly people cluster in particular parts of the world
- C. Biological factors influence mental and physical health
- D. Genes and lifestyles are essential for a long life span
- E. Several biological factors are at work affecting life span

