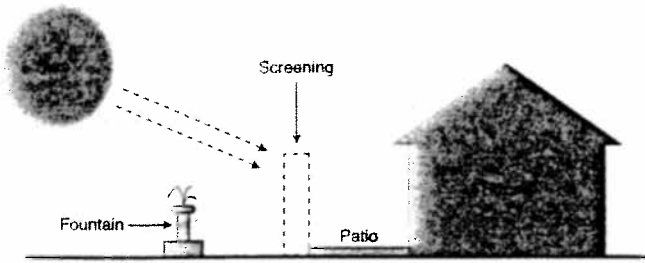


Name \_\_\_\_\_

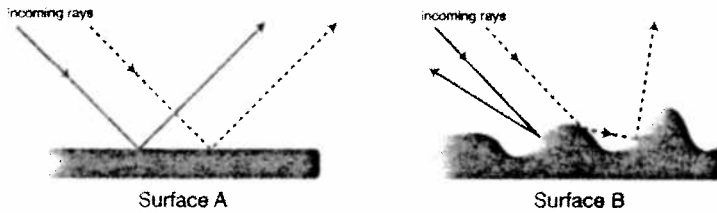
208. A landscaper wants to install some sort of screening to protect the patio shown below. She wants to shade the patio from the sun when it is low in the sky. She plans to use a material that will block most of the direct rays of sunlight but not the pleasant sound of the fountain in the yard nearby.



Which screening material would absorb or reflect most of the direct rays of sunlight without absorbing much of the sound from the fountain?

- A. concrete wall
- B. rock wall
- C. short leafy tree
- D. insulated fiberglass panel

209. This diagram shows rays of light striking and being reflected by two different surfaces.



Compared with surface B, how would surface A appear?

- A. shinier
- B. duller
- C. darker
- D. lighter

Remember to:

1. Read carefully
2. Underline key words
3. Study pictures / diagrams carefully
4. Open Ended Responses
  - a. Use information given
  - \* b. refer to the info given
  - c. be specific

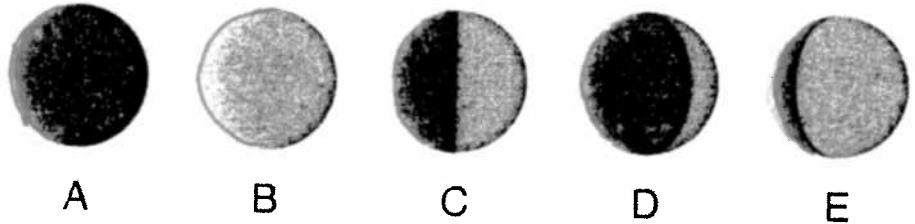
5. Check work by covering your answer and see if you get the same answer

6. Think about your life experiences, make connections.

THINK

The drawings below show phases of the moon over a two-week period. Use the drawings to answer questions 312-314.

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Let's talk about what part of the moon is illuminated (lit, lighted) and what part is shadowed (dark)

312. Which drawing represents the full moon phase?

- A. A
- B. B
- C. C
- D. D

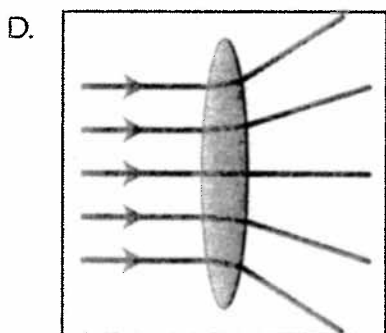
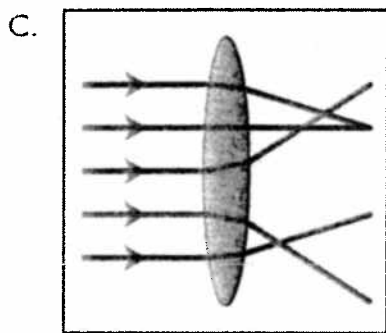
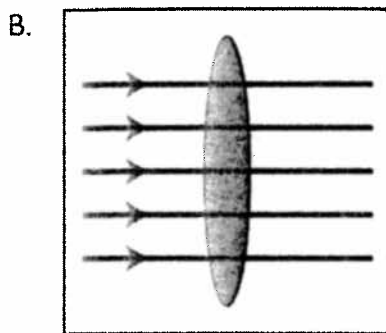
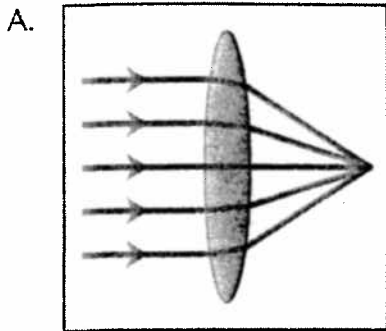
313. Which phase follows the full moon phase?

- A. A
- B. C
- C. D
- D. E

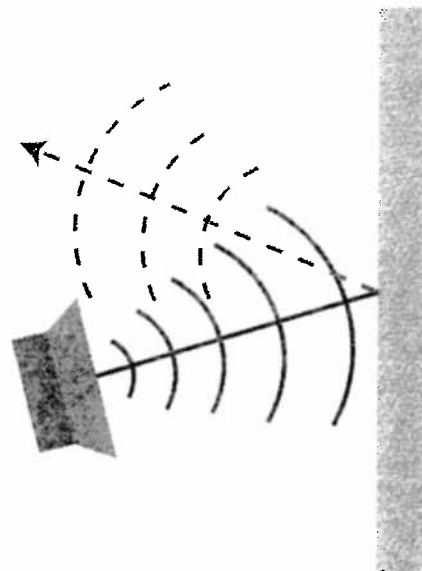
314. If phase D follows phase C, what is the name of phase C?

- A. first quarter
- B. third quarter
- C. gibbous moon
- D. crescent moon

Which drawing shows how a convex lens bends light?



2. What property of sound does this diagram represent?



- A. refraction
- B. diffraction
- C. absorption
- D. reflection

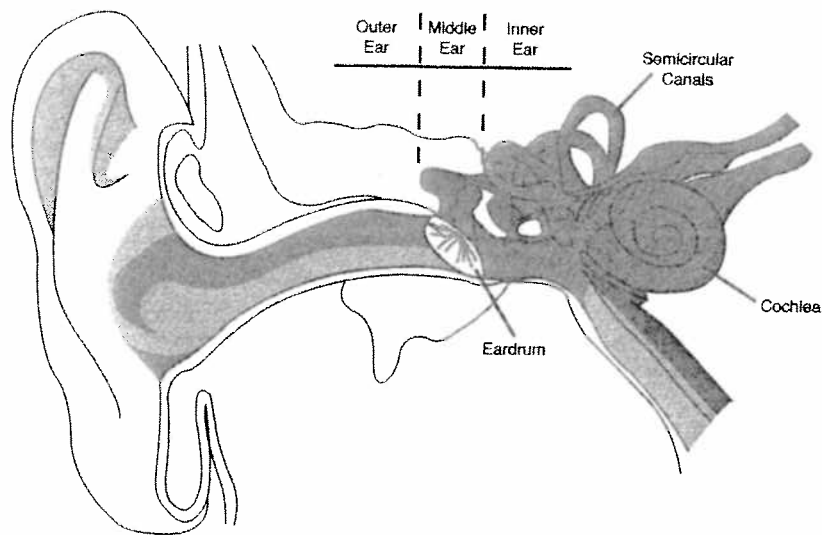
3. Damon is playing football with four friends. Each friend's mass and running speed are listed in the table below.

Friend	Mass (kg)	Running Speed (km/hour)
Michael	48	11
Jorge	48	12
Seth	47	12
Jake	47	11

Which friend must Damon tackle with the greatest force to stop him from running down the field?

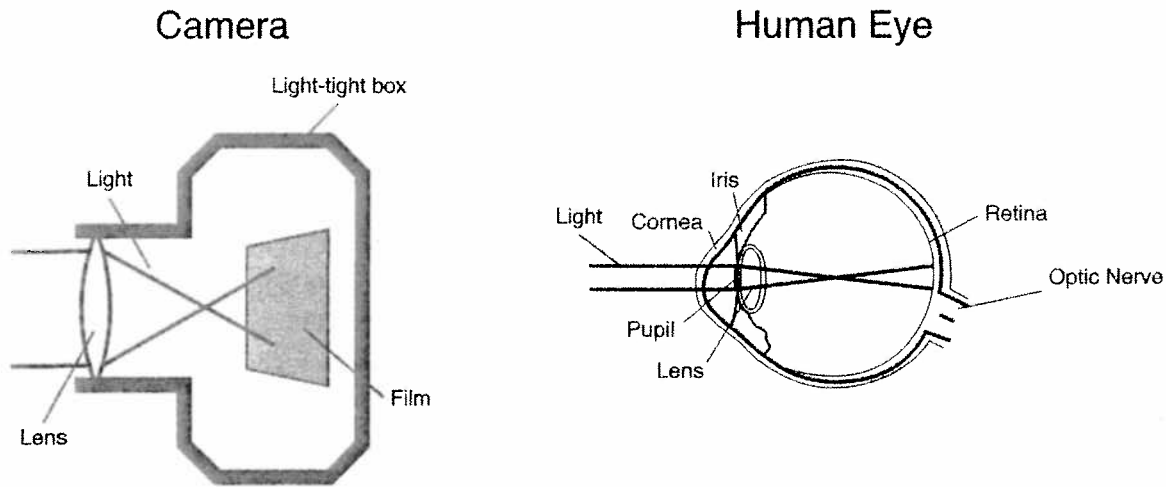
- A. Michael
- B. Jorge
- C. Seth
- D. Jake

Use this drawing of the ear to answer questions 274–276.



- 274.** Which part of the ear vibrates first when a sound wave enters the ear?
- A. inner ear
  - B. cochlea
  - C. eardrum
  - D. semicircular canals
- 275.** The part of the ear where sound vibrations are changed to nerve signals is the
- A. outer ear.
  - B. middle ear.
  - C. inner ear.
  - D. eardrum.
- 276.** Which magazine article about the ear would likely provide the most relevant information about how the ears help maintain balance?
- A. Scientific American: “New Devices to Treat Hearing Loss”
  - B. National Geographic: “Ear Decorations in Bali”
  - C. Popular Science: “The Ear as a Sound Receiver”
  - D. Physics Today: “Body Movement and the Semicircular Canals”

As shown in the drawings below, a camera can be used as model for the human eye. Analyze this model by answering questions 364–366.



**364.** In an old-fashioned camera, light forms an image on film inside the camera. Which structure of the eye is like the film of a camera?

- A. lens
- B. optic nerve
- C. retina
- D. cornea

**365.** One way a camera is a good model for the eye is that both the camera and the eye

- A. reflect images.
- B. give off light.
- C. capture sound.
- D. focus light.

**366.** A camera has a light-tight box that keeps light out except when a picture is taken. Which structure of the human eye is modeled by the light-tight box of a camera?

- A. pupil
- B. cornea
- C. iris
- D. optic nerve