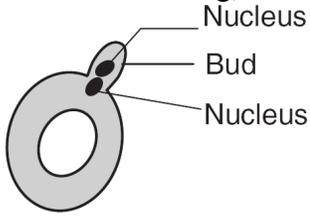


1. The diagram below represents a yeast cell that is in the process of budding, a form of asexual reproduction.

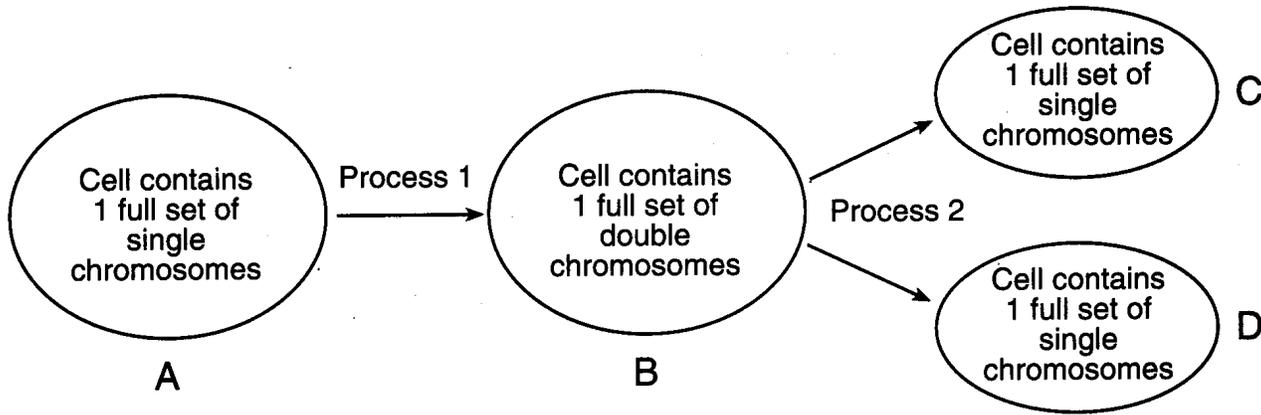


Which statement describes the outcome of this process?

- A) The bud will develop into a fertilized egg cell.
 - B) The two cells that result will each contain half the species number of chromosomes.
 - C) The two cells that result will have identical DNA.
 - D) The bud will start to divide to create a sex cell.
2. The release of spores by a mushroom is one type of
- A) binary fission
 - B) gametogenesis
 - C) meiosis
 - D) asexual reproduction
3. Strawberries can reproduce by means of runners, which are stems that grow horizontally along the ground. At the region of the runner that touches the ground, a new plant develops. Why is the new plant genetically identical to the parent?
- A) it was produced sexually
 - B) nuclei traveled to the new plant through the runner to fertilize it
 - C) it was produced asexually
 - D) there were no other strawberry plants in the area to provide fertilization
-

Do Now Unit 5 Reproduction and Development

4. Base your answer to the following question on the diagram below and on your knowledge of biology. The diagram represents a single-celled organism, such as an amoeba, undergoing the changes shown.



As a result of these processes, the single-celled organism accomplishes

- A) gamete production B) energy production
C) sexual reproduction D) asexual reproduction
5. Marine sponges contain a biological catalyst that blocks a certain step in the separation of chromosomes. Which cellular process would be directly affected by this catalyst?
- A) mitosis B) diffusion
C) respiration D) photosynthesis
6. The diagram below represents chromosomes in a zygote.



Which diagrams best illustrate the daughter cells that result from normal mitotic cell division of this zygote?

- A) +
- B) +
- C) +
- D) +

7. Which mitotic event in the chart below occurs after the other three events have taken place?

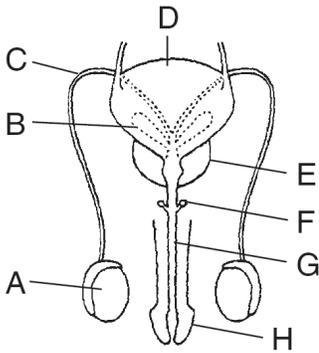
A	Appearance of spindle fibers
B	Separation of chromatids by the action of spindle fibers
C	Disintegration of the nuclear membrane
D	Replication of chromosomes

- A) A B) B C) C D) D
8. The uncontrolled division of certain body cells, which then invade the surrounding tissues and interfere with the normal functioning of the body, is known as

- A) cancer B) regeneration
C) cleavage D) oogenesis

Do Now Unit 5 Reproduction and Development

9. Base your answer to the following question on the picture below which represents systems in a human male and on your knowledge of biology.



Which structure has both reproductive and excretory functions?

- A) A B) G C) C D) D
10. The data in the table below indicate the presence of specific reproductive hormones in blood samples taken from three individuals. An *X* in the hormone column indicates a positive lab test for the appropriate levels necessary for normal reproductive functioning in that individual.

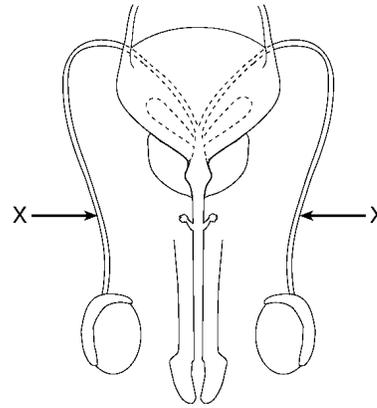
Data Table

Individuals	Hormones Present		
	Testosterone	Progesterone	Estrogen
1		X	X
2			X
3	X		

Which processes could occur in individual 3?

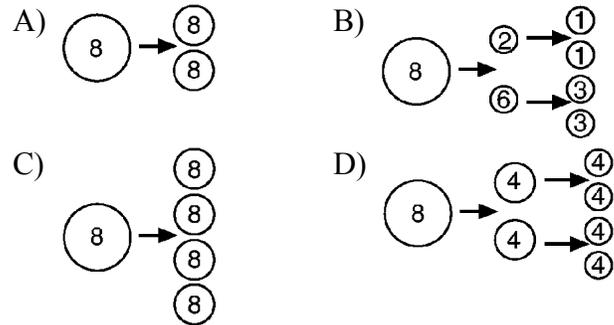
- A) production of sperm, only
 B) production of sperm and production of eggs
 C) production of eggs and embryonic development
 D) production of eggs, only

11. Some body structures of a human male are represented in the diagram below.



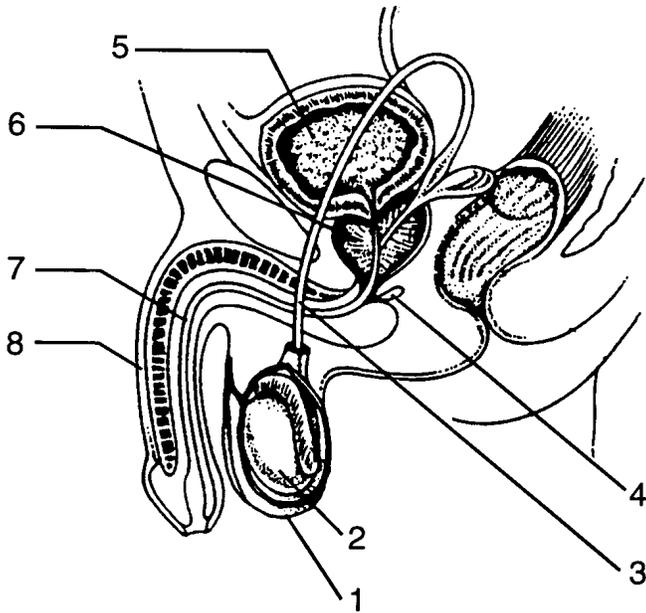
An obstruction in the structures labeled *X* would directly interfere with the

- A) transfer of sperm to a female
 B) production of sperm
 C) production of urine
 D) transfer of urine to the external environment
12. Which diagram best represents part of the process of sperm formation in an organism that has a normal chromosome number of eight?



Do Now Unit 5 Reproduction and Development

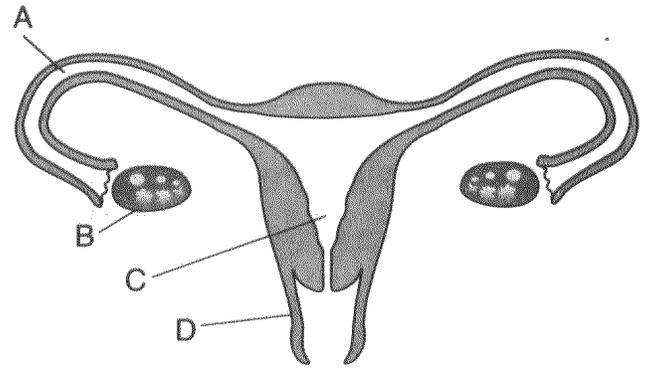
13. Base your answer to the following question on the diagram below of the human male reproductive system and on your knowledge of biology.



The secondary sex characteristics of the male are controlled by hormones produced by structure

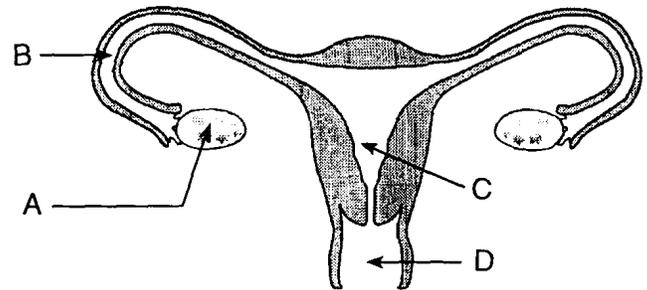
- A) 7 B) 2 C) 3 D) 6
14. What is the human female reproductive system adapted for?
- A) production of zygotes in ovaries
 B) external fertilization of gametes
 C) production of milk for a developing embryo
 D) transport of oxygen through a placenta to a fetus
15. Toxins can harm a developing fetus. They usually enter the fetus by the process of
- A) blood flow from the mother to the fetus
 B) active transport from the ovary
 C) diffusion across placental membranes
 D) recombination of genes from the fetus and mother
16. Removal of one ovary from a human female would most likely
- A) affect the production of eggs
 B) make fertilization impossible
 C) make carrying a fetus impossible
 D) decrease her ability to provide essential nutrients to an embryo

17. A diagram of human female reproductive structures is shown below.



Which structure is correctly paired with its function?

- A) *A* – releases estrogen and progesterone
 B) *B* – produces and releases the egg
 C) *C* – provides the usual site for fertilization
 D) *D* – nourishes a developing embryo
18. The diagram below shows the human female reproductive system.

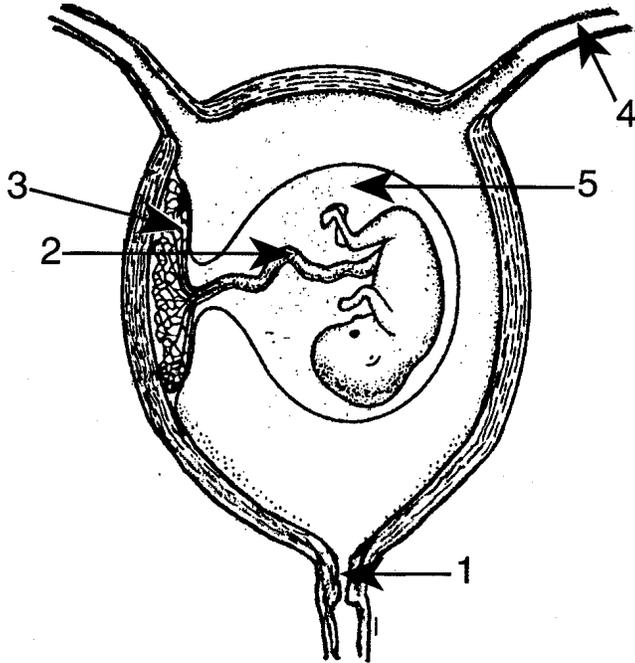


The fetus normally develops within structure

- A) *A* B) *B* C) *C* D) *D*
19. Which organ is correctly paired with its function?
- A) uterus — serves as site of implantation of the embryo
 B) penis — serves as site of semen formation
 C) testis — produces follicle stimulating hormone
 D) fallopian tube — produces the egg

Do Now Unit 5 Reproduction and Development

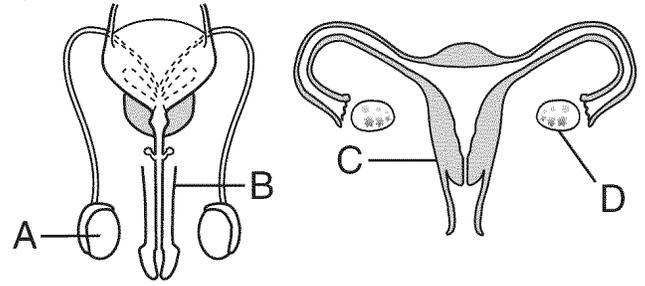
20. Base your answer to the following question on the diagram below, which represents a human embryo developing in the uterus, and on your knowledge of biology.



Internal fertilization normally takes place in the structure indicated by number

- A) 1 B) 2 C) 5 D) 4
21. The ovary releases an egg in a process known as
- A) fertilization B) gestation
C) ovulation D) implantation
22. As women age, their reproductive cycles stop due to decreased
- A) digestive enzyme production
B) production of ATP
C) levels of specific hormones
D) heart rate

23. The diagram below represents human reproductive systems.



Which statement best describes part of the human reproductive process?

- A) Testosterone produced in *A* is transferred to *D*, where it influences embryonic development.
B) Testosterone produced in *D* influences formation of sperm within *B*.
C) Estrogen and progesterone influence the activity of *C*.
D) Progesterone stimulates the division of the egg within *C*.
24. Base your answer to the following question on the stage of the human menstrual cycle, *chosen from the list below*, that is most closely associated with that statement.

Stages of the Human Menstrual Cycle

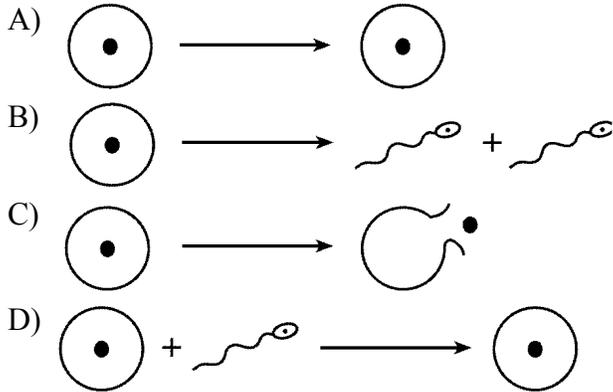
- (1) Follicle
(2) Ovulation
(3) Corpus luteum
(4) Menstruation

It usually will *not* occur if a zygote is formed during the cycle.

- A) 1 B) 2 C) 3 D) 4
25. In a human female, what is the most direct result of the presence of the hormone FSH?
- A) production of the corpus luteum
B) development of the ovarian follicle
C) breakdown of the uterine lining
D) disintegration of the ovum
26. In which stage of the human menstrual cycle is an egg released from an ovary?
- A) Ovulation
B) Follicle stage
C) Menstruation
D) Corpus luteum stage

Do Now Unit 5 Reproduction and Development

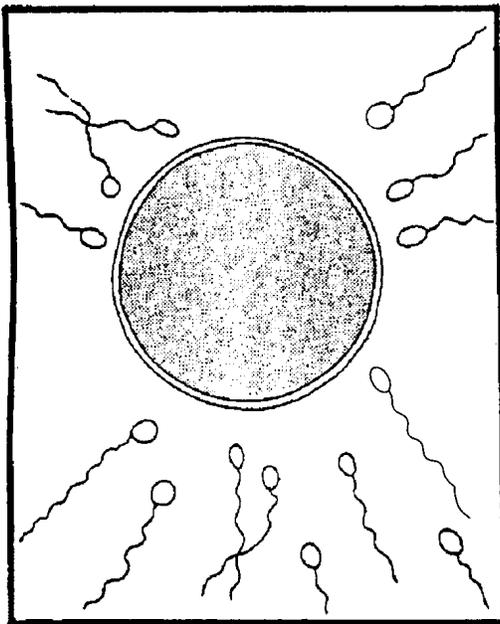
27. Which diagram best illustrates an event in sexual reproduction that would most directly lead to the formation of a human embryo?



28. Meiosis and fertilization are important processes because they may most immediately result in

- A) many body cells B) immune responses
C) genetic variation D) natural selection

29. Base your answer to the following question on the diagram below, which suggests an event in human reproduction.



In humans, which process would normally *not* occur within the first two months after the completion of the process suggested in the diagram?

- A) mitosis B) implantation
C) menstruation D) differentiation

30. Which techniques are sometimes used to help a woman who has blocked fallopian tubes have a child?

- A) inbreeding and natural selection
B) in vitro fertilization and implantation
C) hybridization and vegetative propagation
D) synapsis and artificial selection

31. In humans, the number of sperm cells required to produce a pair of identical twins is

- A) 1 B) 2 C) 3 D) 4

32. Which event would most probably result in the production of fraternal twins?

- A) One egg is fertilized by two sperm cells.
B) Two egg cells are fertilized by one sperm cell.
C) Two egg cells are each fertilized by separate sperm cells.
D) Two eggs develop without fertilization.

33. Which statement describes one function of the placenta in mammals?

- A) It allows blood of the mother to mix with the blood of the fetus.
B) It contains fluid that protects the embryo from harm.
C) It removes waste products that are produced in the cells of the fetus.
D) It synthesizes food for the embryo.

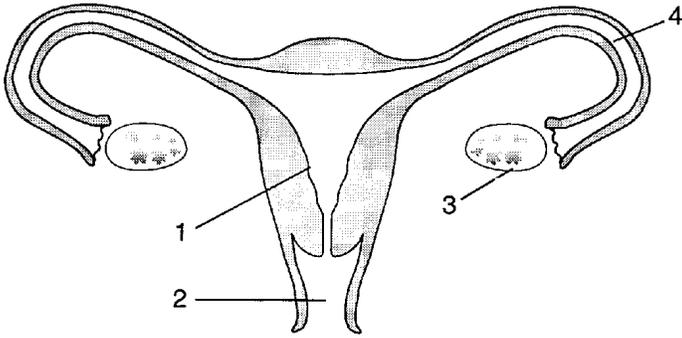
34. Although all the body cells in an animal contain the same hereditary information, they do not all look and function the same way. Which step of differentiation causes this to occur?

- A) embryonic cells use different portions of their genetic information
B) the number of genes increases as embryonic cells move to new locations
C) embryonic cells delete portions of chromosomes
D) genes in embryonic body cells mutate rapidly

35. Gestation for a human embryo ends when

- A) birth occurs B) puberty is reached
C) differentiation ends D) menstruation begins

36. Base your answer to the following question on the diagram below. For *each* statement select the structure, *chosen from the diagram below*, that is most closely related to that statement.



A placenta normally forms in this structure.

- A) 1 B) 2 C) 3 D) 4