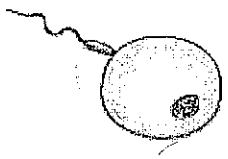
1

The diagrams below represent forms of reproduction. In which form of reproduction will the offspring differ *most* from the parent?

A. 

C. 

B. 

D. 

2

Spirogyra are green algae that can reproduce sexually. Which of the following features identifies reproduction in *Spirogyra* as sexual reproduction?

A. The cells of the parent algae have nuclei.

B. Each offspring contains chloroplasts.

C. Several offspring may be produced at once.

D. Genetic material is contributed by two parents.

3

Sharks typically reproduce sexually. A particular female shark, however, gave birth in a zoo despite having no recent contact with a male shark.

A. Identify the type of cell division that produces eggs and sperm in animals such as sharks.

B. Describe what normally happens during fertilization in animals such as sharks. Be sure to identify the end product of fertilization.

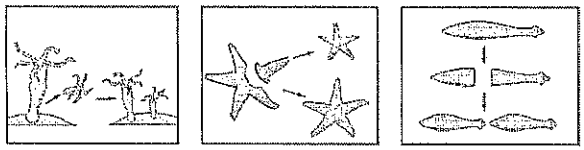
4

Female sharks can store sperm after mating and then wait to fertilize their eggs. Scientists investigated whether the female shark in the zoo did this.

A. Describe how DNA analysis can determine if the shark reproduced using stored sperm or if she reproduced asexually.

B. Explain why sexual reproduction is important for the long-term survival of shark species.

5

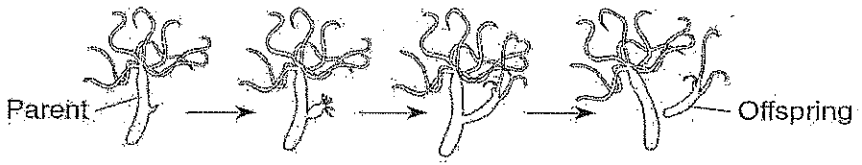


Which of these classifies the reproductive method of <u>all</u> the organisms shown above?

A. Budding
B. Fragmentation
C. Sexual reproduction
D. Asexual reproduction

6

The hydra shown below is reproducing asexually.



What percentage of the offspring's genetic information is the same as the genetic information of the parent? Explain your answer.

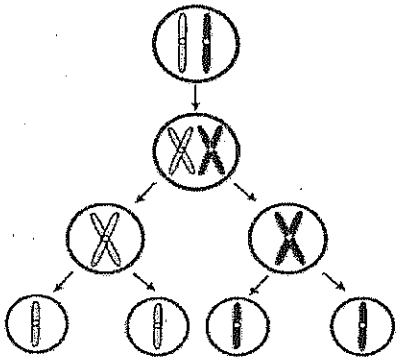
7

The processes of meiosis and fertilization help ensure the survival of the species by providing each generation with the same number of

A. Body cells
B. Chromosomes
C. Offspring
D. Gametes

8

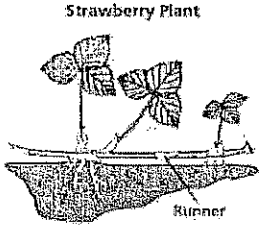
Why must gametes only contain half the amount of genetic information of the parent?



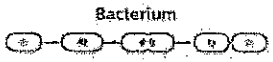
9

Which diagram is the best example of an organism undergoing sexual reproduction?

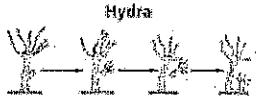
A.



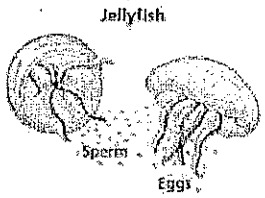
B.



C.



D.



10

Which statement correctly describes a difference between sexual and asexual reproduction?

A. Sexual reproduction only happens in animals, while asexual reproduction only happens in plants.

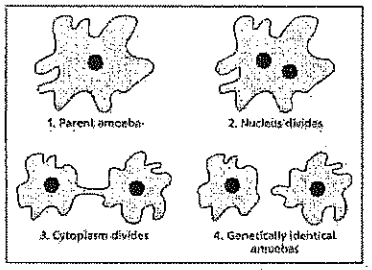
B. Sexual reproduction requires fertilization of one gamete by another gamete, while asexual reproduction requires only one parent to produce an offspring.

C. Sexual reproduction only happens in single-celled organisms, while asexual reproduction only happens in multicellular organisms.

D. Sexual reproduction only happens when cells have a nucleus, while asexual reproduction only happens when cells do not have a nucleus.

11

The diagram below shows one parent amoeba forming two daughter amoebas.

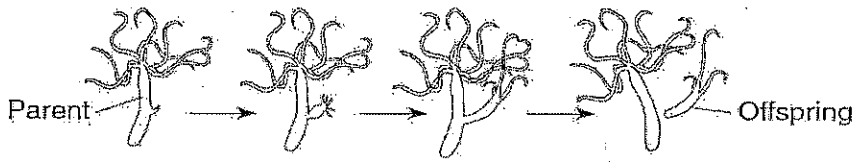


What term best describes this process?

A. Budding
B. Fragmentation
C. Binary Fission
D. Regeneration

12

Some simple invertebrates reproduce by budding. What is budding?



13

Which of the following normally results from meiosis in a human cell that contains 46 chromosomes?

A. an egg cell with 46 chromosomes
B. a liver cell with 23 chromosomes
C. a blood cell with 46 chromosomes
D. a sperm cell with 23 chromosomes

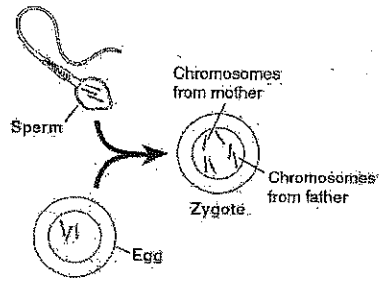
14

Which example best describes asexual reproduction?

A. An amphibian fertilizes eggs floating on water to produce tadpoles.
B. A male flower on one tree pollinates a female flower on another tree and produces seeds.
C. A runner from the roots of a parent plant produces genetically identical daughter plants.
D. A gamete from one fungus fuses with the gamete of another fungus and produces a zygote.

15

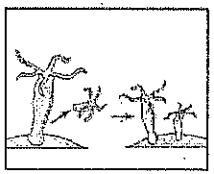
The diagram below shows the formation of a zygote from an egg and a sperm.

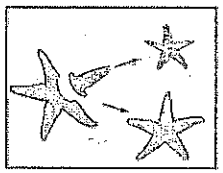


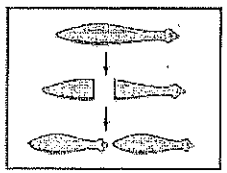
Which type of reproduction is shown? What conclusion can be made about the zygotes chromosomes?

16

Both budding and regeneration produce clones. What is a clone?


Hydra

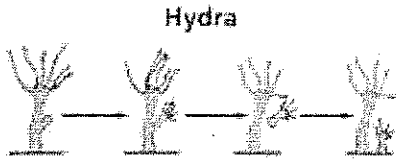

Sea Star


Planaria

Name _____ Date _____ Period _____

Types of Reproduction

Write your answers to the task cards in the spaces below.



1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	16