

Sexual Reproduction

- Requires two sex cells – egg and sperm
- The egg and sperm join to form an entirely new organism
 - Different from the parent organism

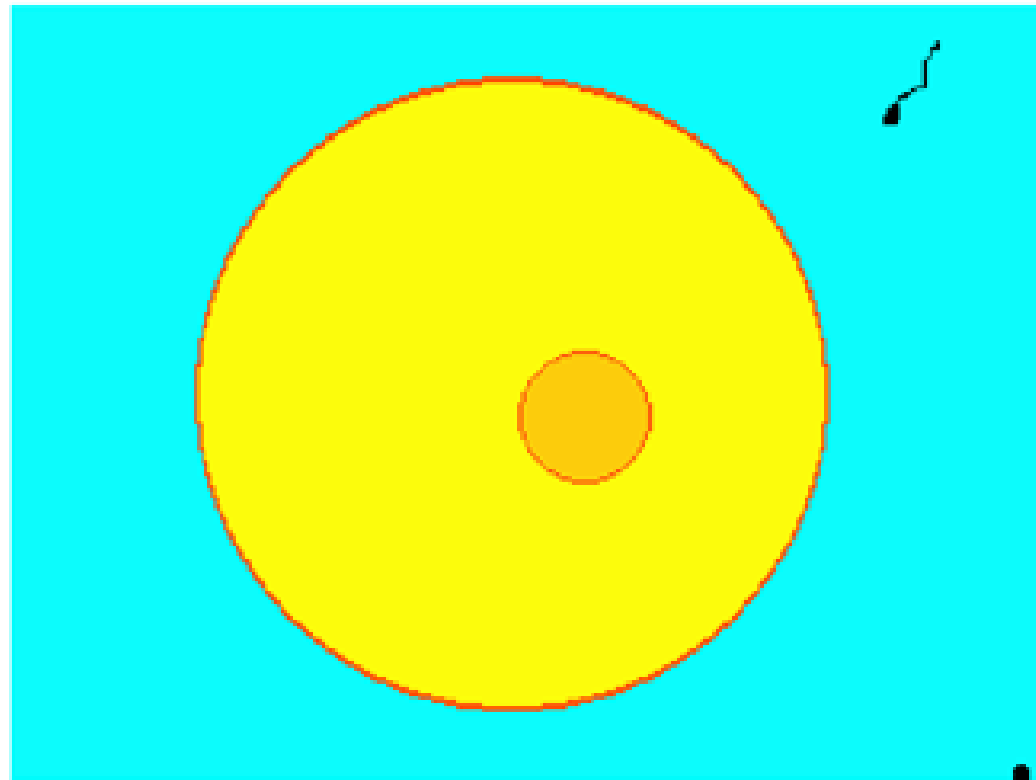
Sexual Reproduction

- Sexual Reproduction

- Examples
 - Humans, some plants, mammals, fish, reptiles, etc.



Sexual Reproduction



IMPORTANT!

- Asexual reproduction results in offspring that are genetically identical to the parent organism
- Sexual reproduction results in offspring that are genetically different from the parent organisms

What type of reproduction is this???

Explain...

Asexual
⇒ Budding



What type of reproduction is this???

Explain...

Asexual → Binary fission



What type of reproduction is this???

Explain...

Regeneration



What type of reproduction is this???

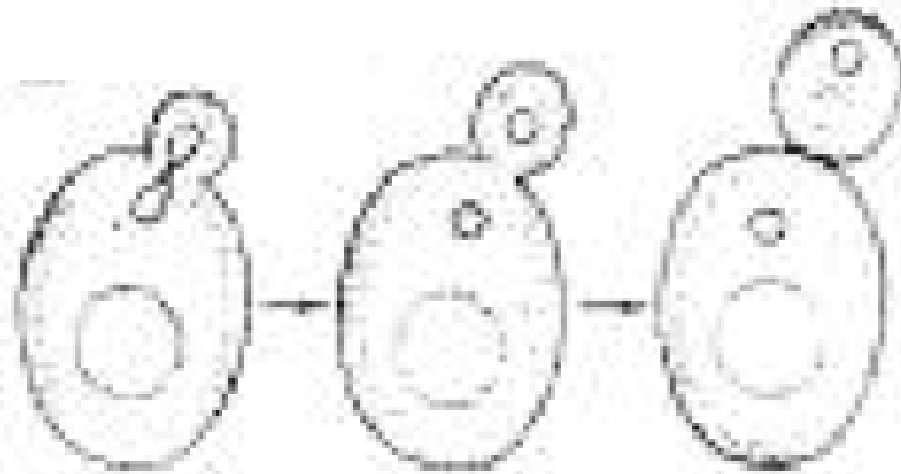
Explain...

Sexual Reproduction



What type of reproduction is this?? Explain...

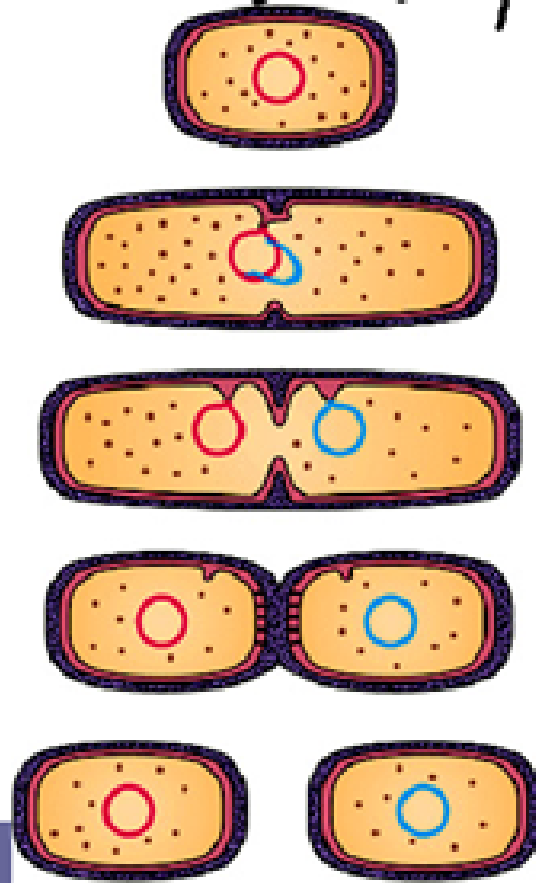
Asexual → fragmentation



What type of reproduction is this???

Explain...

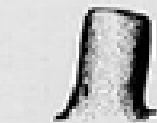
Asexual → Binary fission



What type of reproduction is this???

Explain...

Regeneration



Amputation



Wound Healing



Dedifferentiation



Early Bud



Medium Bud



Late Bud



Palette



Early Differentiation



Complete

What type of reproduction is this???

Explain...

Asexual Mitosis

Amoeba divides after it has grown to a certain size.



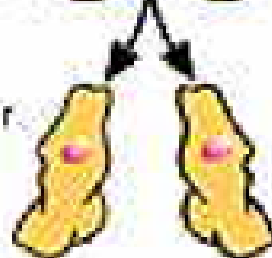
The pseudopodia are pulled in and the nucleus divides.



The cell body begins to divide when the nucleus has split.



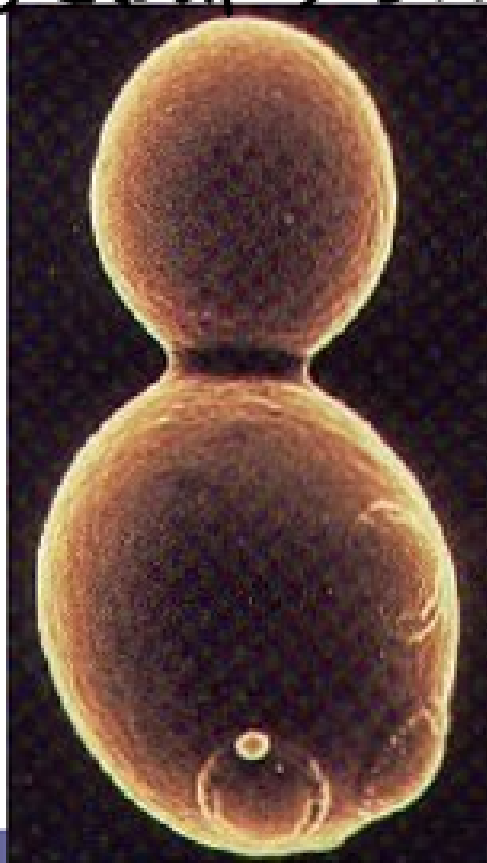
Two daughter amoebae are formed.



What type of reproduction is this???

Explain...

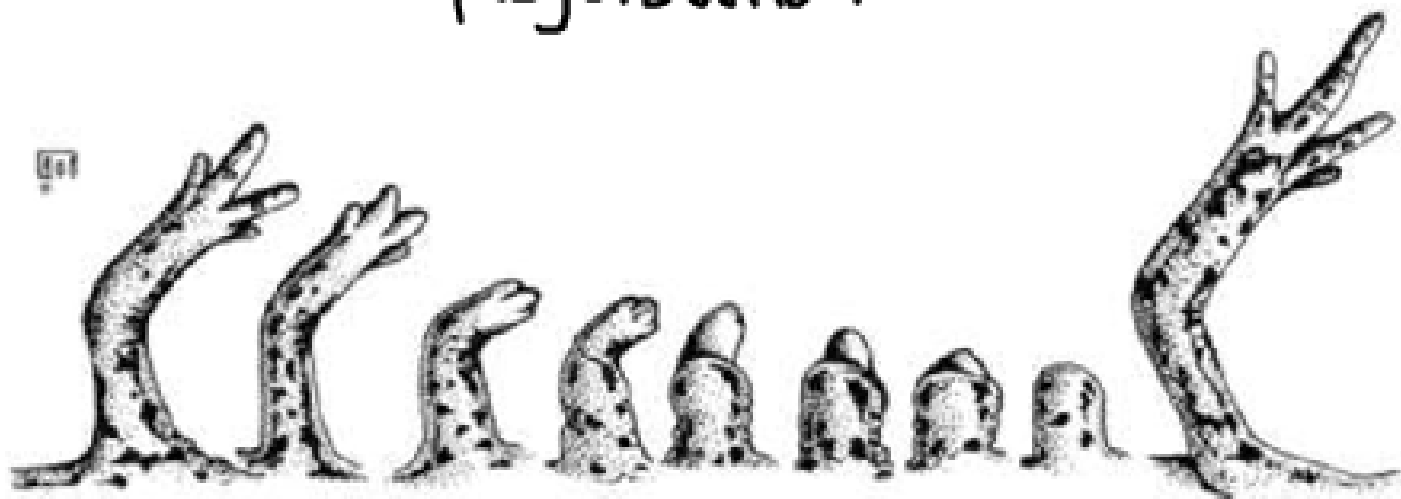
Asexual → budding



What type of reproduction is this???

Explain...

Regeneration



Advantages of Asexual Reproduction:

1. Easy and fast: grow population quickly
2. No energy spent in attracting mate, creating gametes, raising young
3. Great in a stable environment

Disadvantages of Asexual
Reproduction:

1. Lack of genetic diversity-
mutations stick around!
2. Not able to survive changing
environments.

Advantages of Sexual Reproduction:

1. Genetic diversity that allows for ****EVOLUTION****
2. More likely to survive changing environments (physical, increasing efficiency in avoiding predators, getting prey, etc.)

Disadvantages of Sexual Reproduction:

1. Population does not grow as quickly
2. A lot of energy spent in attracting mate, creating gametes, raising young