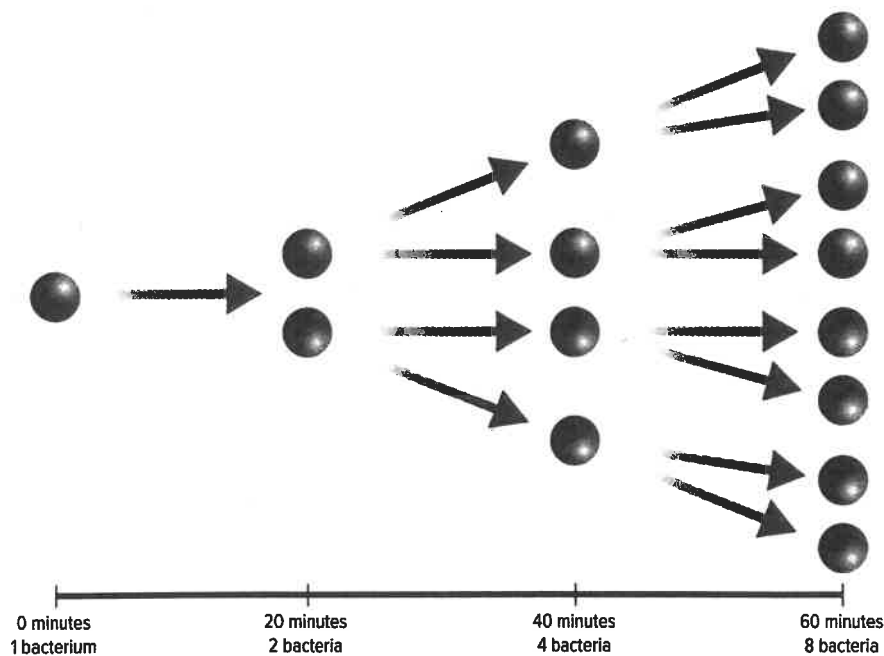


Binary Fission

Use with textbook pages 22-23.

Use the diagram showing the reproduction of bacterial cells to answer questions 1 to 5.



1. What type of asexual reproduction is shown above? _____
2. Bacteria double every 20 minutes under favourable conditions. Complete the following table to display the reproduction data shown in the diagram.

Time (min)	Number of Bacterial Cells
0	1
20	
40	
60 (1 h)	
80	
100	
120 (2 h)	
140	
160	
180 (3 h)	

3. Use the table on the previous page to graph the data for the first 120 minutes. What variable would go on the x -axis? What variable would go on the y -axis?

4. Describe how the graph represents the growth of the bacterial population.

5. Based on the reproduction rate, how many bacterial cells would you expect after

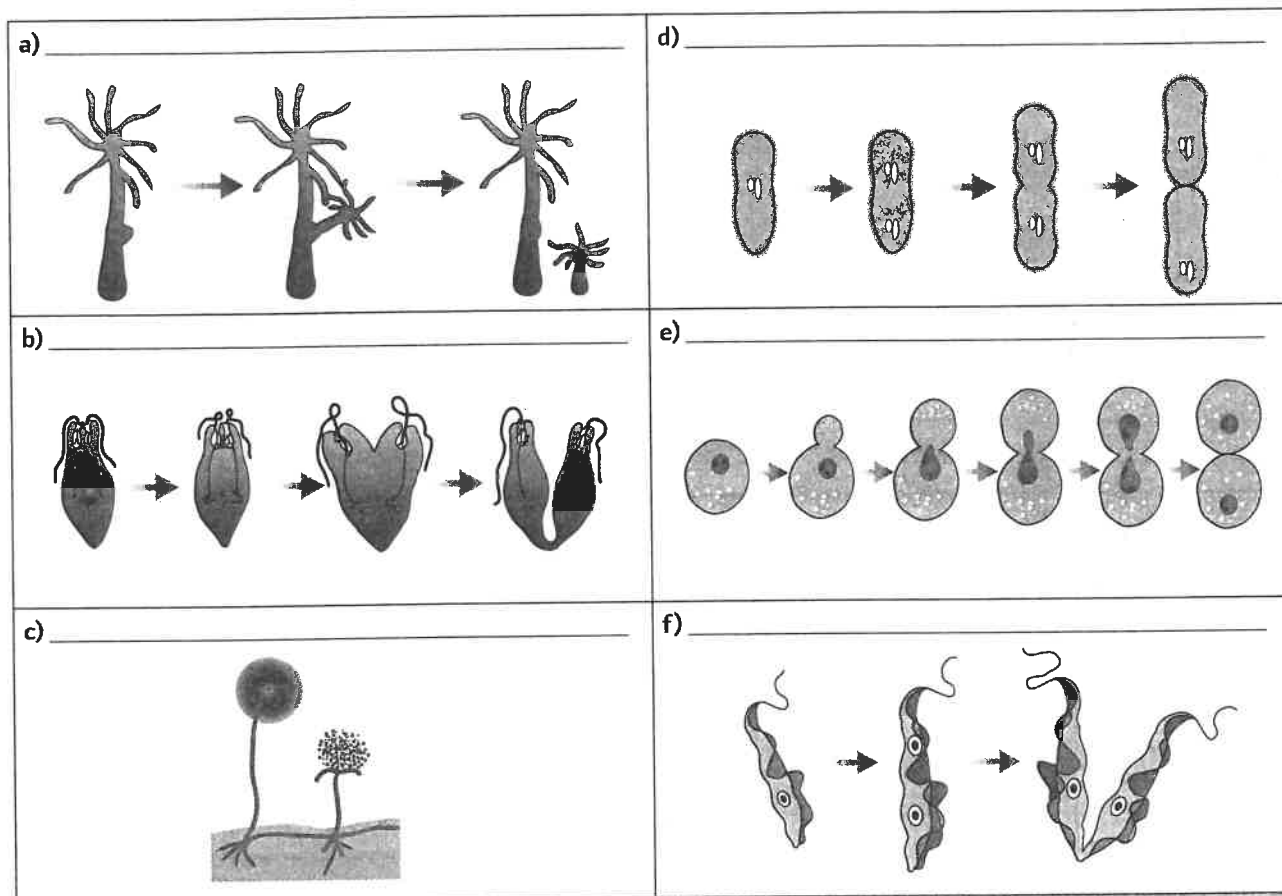
a) 12 hours? _____

b) 24 hours? _____

Binary Fission, Budding, and Spore Formation

Use with textbook pages 22-30.

1. Identify the type of asexual reproduction shown in each diagram.



2. Identify the type of asexual reproduction described in each scenario.

- The aquatic cell of *Planctomycetes* forms a bud, which eventually becomes a new cell that swims. _____
- A unicellular green algae, *Microsterias furcata*, divides into two equal halves forming two new cells. _____
- An amoeba grows to a certain size and then its nucleus and cytoplasm divide. This results in two amoebas. _____
- Amanita muscaria* releases spores from under its iconic red cap with white warts, producing more of these poisonous B.C. toadstools.
