

Cell Continuity and Diversity

1. Name a human cell that is haploid
2. What is meant by the diploid number of a cell?
3. If the diploid number in a cell is 46, the haploid number is ...
4. Explain the term diploid number.
5. The haploid number of chromosomes is found in the human egg and sperm. Explain the underlined term.
6. True or false. Mitosis is the division of a nucleus into two identical nuclei
7. State a function of mitosis in a single-celled organism.
8. State a function of mitosis in a multicellular organism.
9. State one way in which mitosis differs from meiosis.
10. How many cells are formed when a cell divides by mitosis?
11. For what purpose do single-celled organisms use mitosis?
12. For convenience of study, mitosis is divided into four stages. List these in order.
13. What term is used to describe a group of disorders of the body in which cells lose the normal regulation of mitosis?
14. Some cells in the human body undergo meiosis. Give one function of meiosis.
15. Where does meiosis occur in the human male?
16. Give the names of the two processes involving DNA which take place during interphase.
17. What is a tissue?
18. Name **two** tissues found in animals.
19. What is meant by tissue culture?
20. Suggest a reason why sterile conditions are needed in tissue culture.
21. Name the gas needed to release energy to make a skin graft.
22. Suggest the most suitable temperature to make skin cells grow for a skin graft.
23. What type of cell division, mitosis or meiosis, is involved in tissue culture?
24. Give **one** other application of tissue culture apart from skin grafting.
25. What is the function of mitosis in single-celled organisms?
26. Give **one** function of mitosis in multicellular organisms.
27. Give **one** location where mitosis occurs in flowering plants.
28. True or False. The cells produced by mitosis are identical.
29. True or False. Meiosis gives rise to variation.

30. True or False. Mitosis always produces four new cells.
31. True or False. Meiosis is never involved in gamete formation.
32. True or False. Single-celled organisms use mitosis for reproduction.
33. In biology, what is meant by the term *organ*?
34. What is a tissue?
35. Name a tissue found in animals. Give a function of the tissue referred to.
36. Explain what is meant by the term *tissue culture*
37. Give **one** application of tissue culture.
38. To which kingdom does *Amoeba* belong?
39. Is the cell of *Amoeba* prokaryotic or eukaryotic? Give a reason for your answer.
40. Give **one** function of the contractile vacuole in *Amoeba*.
41. Suggest **one** reason why a contractile vacuole is more active in freshwater amoebae than in marine amoebae.
42. What is the function of spindle fibres?
43. Tissues grow by cell division. Name the type of cell division by which tissues grow.
44. Organs are found in both plants and animals. What is meant by the term organ?
45. Name one organ found in plants.
46. What is the role of mitosis in single-celled organisms?
47. What medical term is used for the group of disorders in which certain cells lose normal control of mitosis?
48. Suggest a possible cause of one of the group of disorders referred to in Q.47
49. Name the stage of mitosis in which the chromosomes are located at the equator of the cell and before they begin to separate.
50. To what are the chromosomes attached during metaphase and anaphase
51. Towards the end of mitosis, in what type of cell does a cell plate form?
52. Give one way in which mitosis differs from meiosis.