

13.

Prophase:

the sister chromatids are joined by a centromere to make chromosome.

the DNA (chromosomes) condenses, becoming shorter and thicker.

sister chromatids = two identical copies of a chromatid that are connected by a centromere

chromatid = one of the identical strands of DNA that will make up a chromosome

Metaphase:

Chromosomes line up in the middle of the cell

Spindle fibres pull the chromosomes into the middle of the cell

Nuclear membrane dissolves

Anaphase:

the centromere splits/breaks

sister chromatids separate into two identical single stranded parts (daughter chromosomes)

spindle fibres pull the daughter chromosomes toward opposite ends of the cell

Telophase:

chromosomes are at opposite ends of the cell and start to lengthen

daughter chromosomes = stretch out, become thinner, no longer visible

new nuclear membrane forms

the cell appears to have two nuclei

14.

Cytokinesis:

final stage

cytoplasm divides

2 genetically identical daughter cells are formed

15. What is a somatic cell?

any cell of a living organism other than the reproductive cells

16. How many chromosomes are found in a human somatic cell? Haploid cell?

Somatic = 46

Haploid = 24

17. Rod-shaped structure that contains DNA and is located in the nucleus