SMPK BPK PENABUR BANDAR LAMPUNG
ACADEMIC YEAR 2025/2026
STUDENT WORKSHEETS

Name:

Class:

13.1 Cell Division

1. (a) What is mitosis?
   =
   (b) In humans, where does mitosis occur? =
   (c) How many phases are there in mitosis? Name them
   =

2. Complete the sentences to explain the phases of mitosis in an animal cell.

(a) The chromosomes condense and become tightly _____.
(b) Each of them is made up of two sister _____ joined at the _____.
(c) The _____ begin to form between the centrioles.
(d) Each pair of centrioles move to the opposite _____ of the cell.
(e) The _____ and _____ disintegrate.

Metaphase

(a) The chromosomes line up at the _____ of the cell.
(b) Each centromere is attached to the _____.
(c) The centromeres start to _____.

Anaphase

(a) The two sister chromatids _____ at the centromeres and move to the _____ poles of the cell.
(b) Once split, the chromatids are known as _____ chromosomes.
(c) At the end of anaphase, each pole of the cell has a complete and _____ chromosomes.

Telophase

(a) The _____ sets of chromosomes reach the poles of the cell.
(b) The chromosomes start to _____ and lengthen to become chromatids.
(c) The _____ disappear.
(d) The _____ and _____ reappear in each nucleus.

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3. Complete the sentences to explain the phases of meiosis 1 in an animal cell.

Prophase I

(a) The chromosomes _____ and become tightly _____.

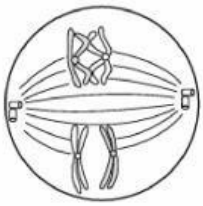
(b) The _____ chromosomes pair up.

(c) _____ occurs to produce new combination of genes in chromosomes.

(d) Each pair of _____ moves to the opposite poles of the cell.

(e) The _____ and _____ disintegrate.

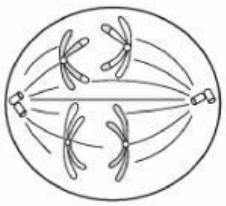
Metaphase I



(a) Pairs of homologous chromosomes line up at the _____ of the cell.

(b) Each centromere is attached to the _____.

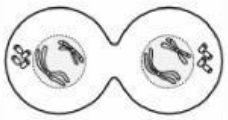
Anaphase I



(a) Each chromosome in the pair moves to the _____ poles of the cell.

(b) Each chromosome still exists as a pair of sister _____.

Telophase I



(a) The chromosomes _____ at the poles.

(b) The _____ and _____ reappear.

(c) _____ occurs, producing two haploid cells.

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