Name _____ Date _____ Answer Key

The Cell Cycle: Mitosis Matching

Show what you know about the cell cycle by answering the questions below!

PART 1. Describe what happens during each phase of the cell cycle. Sample Answers

a. Interphase: The cell grows and makes an identical copy of its DNA.

b. Prophase: Chromatin winds up tightly into chromosomes. The nuclear envelope breaks down. Spindles form.

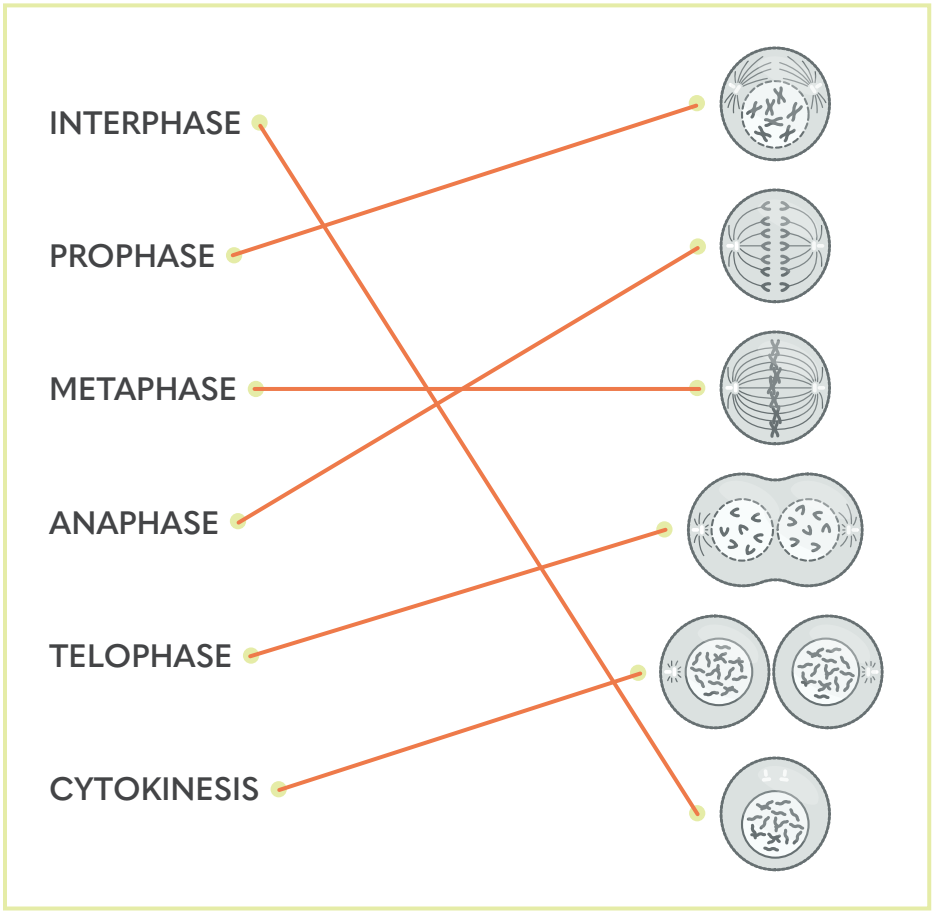
c. Metaphase: The chromosomes line up in the center of the cell.

d. Anaphase: The spindles pull the sister chromatids of each chromosome apart, resulting in two sets of identical chromosomes.

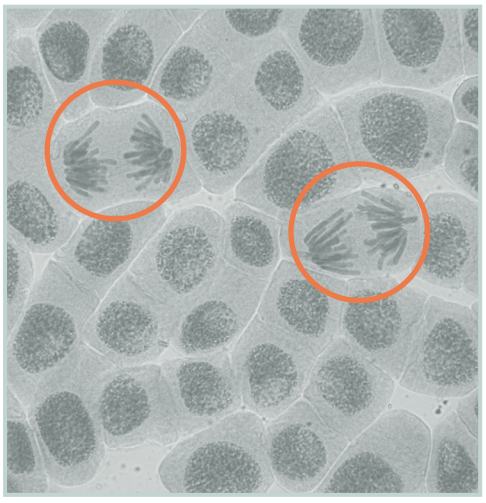
e. Telophase: The spindle dissolves and nuclear envelopes form around the chromosomes of each cell.

f. Cytokinesis: The cytoplasm divides and the two cells are completely separated.

PART 2. Draw a line to match the phase of the cell cycle to its diagram.



BONUS!



This is an image of onion root tip cells under a microscope. They are in various stages of mitosis. Can you find a cell in anaphase?