

Phases of M Phase of Cell Cycle

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A. Purpose

1. Mitosis - division of nucleus

2. Cytokinesis - division of cytoplasm = 2 genetically identical daughter cells

B. Phases

Description

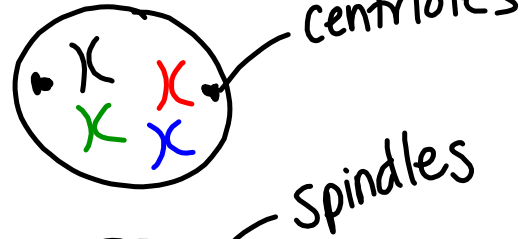
1. Prophase	<ul style="list-style-type: none"> chromatin condenses into replicated chromosomes (sister chromatids) centrioles move to ends of cells nuclear envelope disappears
2. Metaphase	<ul style="list-style-type: none"> chromosomes line up in <u>middle</u> of cell centrioles produce spindles that attach to chromosomes
3. Anaphase	<ul style="list-style-type: none"> chromosomes move <u>a</u>way from each other = No more sister chromatids
4. Telophase	<ul style="list-style-type: none"> 2 nuclear envelopes reform chromosomes go back to chromatin
Cytokinesis	<ul style="list-style-type: none"> cytoplasm splits = 2 daughter cells

Diagram of M Phase

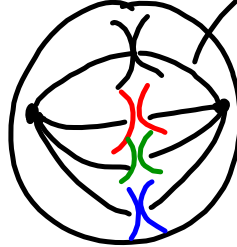
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Prophase

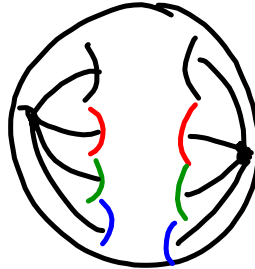
Start: 4 replicated chromosomes due to S phase



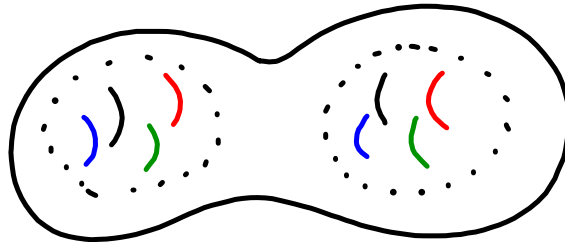
Metaphase



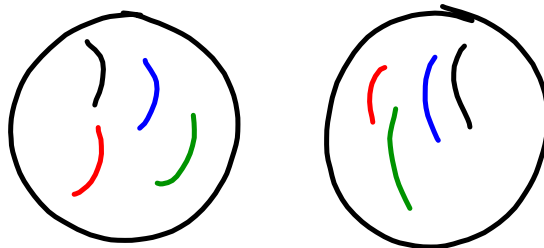
Anaphase



Telophase



Cytokinesis



identical 4 chromosomes in each

