EXAM EXPECTATIONS
MYP Biology
"Cell Division"

STATE that nerves and muscles are amitotic
STATE that cell division is necessary for proper development
STATE that cell division is the basis for both sexual and asexual reproduction
STATE that cell division can produce an entirely new organism
STATE that cell division is necessary to continue life
STATE the role of centromeres
STATE that asexual reproduction requires only one parent, (sexual reproduction requires two parents)
DEFINE spontaneous generation
DEFINE regeneration
DEFINE life cycle
DEFINE nucleoli
DEFINE diploid, haploid, polyploid
DEFINE cytokinesis
DEFINE mitosis
DEFINE binary fission
DEFINE genome
DEFINE metastasize
DEFINE gamete, somatic cell and zygote
LIST the three parts of interphase
LIST functions of mitosis
IDENTIFY the events in each stage of the cell cycle (G1, S, G2)
IDENTIFY the stages and substages of the cell cycle
IDENTIFY the events in each stage of mitosis (prophase, metaphase, anaphase, telophase)
IDENTIFY mechanisms that generate genetic diversity
IDENTIFY the events in each stage of meiosis I and II (prophase, metaphase, anaphase, telophase)
IDENTIFY relative or approximate times that a cell spends in each phase of the cell cycle
IDENTIFY the stage of the cell cycle that a cell is in from a written description
IDENTIFY the types of cells that ignore density dependent inhibition
IDENTIFY the stage of the cell cycle that a cell is in from an image
OUTLINE the treatments for cancer
OUTLINE homologous pairs of chromosomes
OUTLINE tetrads
OUTLINE the significance of independent assortment
OUTLINE Virchow's principle
OUTLINE crossing over
OUTLINE karyotyping
OUTLINE non disjunction
OUTLINE cancer
OUTLINE density dependent inhibition
ANALYZE a line graph
DESCRIBE sister chromatids
DESCRIBE mitosis
DESCRIBE meiosis
DESCRIBE Downs Syndrome
DESCRIBE ways in which a person could get XYY chromosomes
COMPARE cell division between animal and plant cells
COMPARE mitosis and meiosis
COMPARE somatic cells and gametes
COMPARE benign and malignant tumors
COMPARE eukaryotic and prokaryotic chromosomes
COMPARE the genes of siblings, of identical twins
COMPARE cytokinesis between animal and plant cells

COMPARE chromosomes and chromatin
EXPLAIN independent assortment
EXPLAIN why the timing and rate of cell division is crucial for development
EXPLAIN why cancer is not usually inherited
DETERMINE a cell where nondisjunction has occurred from a given image
PREDICT the effects on a cell or its daughter cells if a given cell stage is eliminated