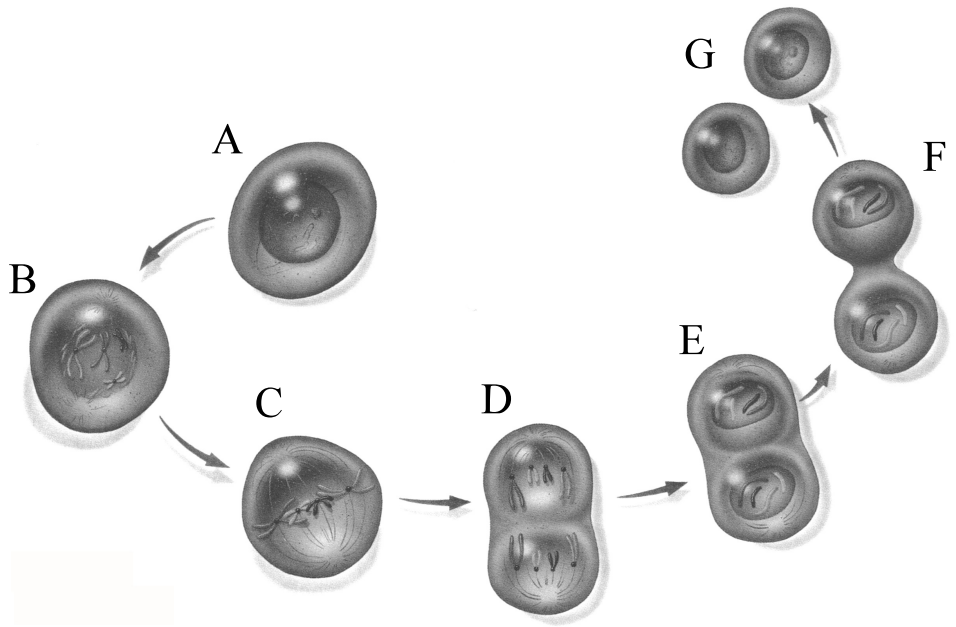


INSTRUCTIONS

1. Refer to P. 28 to 31 of your text & the diagram to:

- (a) label each phase and
- (b) complete each description (see word list below).

- cell
- cell cycle
- cell wall
- centrioles
- chromatids
- chromosomes
- completely
- cytoplasm
- daughter
- dissolve
- DNA
- formed
- genetic
- identical
- interphase
- membrane
- middle
- opposite
- organelles
- pinches
- separate
- spindle fibres
- thicken
- visible



	PHASE	DESCRIPTION
	A	<ul style="list-style-type: none"> • the single cell grows & new _____ are made • the _____ is duplicated in the nucleus • this ensures the same _____ info is passed onto each new daughter cell
M I T O S I S	B	<ul style="list-style-type: none"> • the chromosomes _____ & become _____ • each chromosome is made up of two _____ strands • the strands are called _____ • the nuclear membrane around the nucleus starts to _____
	C	<ul style="list-style-type: none"> • the _____ line up in the _____ of the cell • _____ move toward the poles & _____ form • the nuclear membrane is _____ dissolved
	D	<ul style="list-style-type: none"> • the chromatids _____ • they are now called _____ chromosomes • the spindle fibres pull the two halves to _____ ends of cell
	E	<ul style="list-style-type: none"> • the daughter chromosomes reach opposite poles of _____ • a new nuclear _____ starts to form around each group
	F	(slightly different in animal & plant cells)
	G	<ul style="list-style-type: none"> • the two new daughter cells enter _____ • the _____ begins again

2. Answer the following questions on the back of this page.

- (a) Why is it necessary to duplicate the nuclear material?
- (b) X-rays and other forms of high-energy radiation can break chromosomes apart. Physicians and dentists ask women if they are pregnant before taking X-rays. Why don't they want to X-ray pregnant women?
- (c) A normal human cell has 46 chromosomes. After the cell has undergone mitosis, how many chromosomes would