

Name: _____

Date: _____

Science 9: Cell Division in Normal and Abnormal Cells

Cell A reproduces once every 24 hours, producing two new cells. (# cells × 2 every 24 hrs)

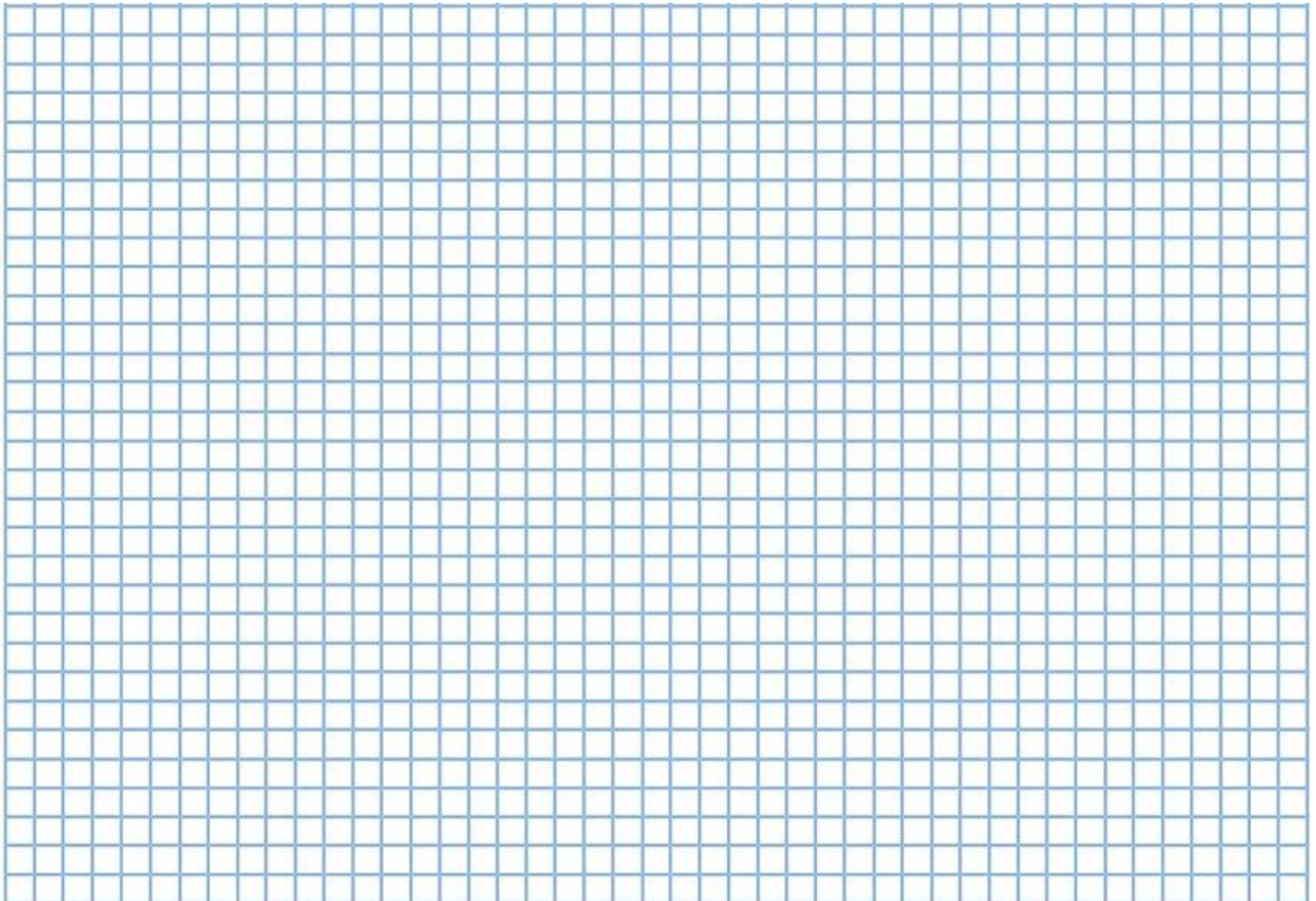
Cell B reproduces once every 8 hours, producing two new cells. (# cells × 2 every 8 hrs)

Cell C reproduces once every 16 hours, producing two new cells (# cells × 2 every 16 hours)

Record the number of cells produced from the original cell each day for the first two days. (3 marks)

Time (hours)	0	8	16	24	32	40	48
Cell A (#)	1	1	1	2			
Cell B (#)	1	2					
Cell C (#)	1	1	2				

Graph the number of cells on the grid. Make each line a different colour or a different marker. Include a label on each axis and a title. (Graph is 6 marks)



Part B: Analysis

1. Describe the **difference** between the growth of Cell A versus Cell B versus Cell C. (2 marks)

2. The normal life span of these cells is 16-24 hours. Which cell do you think is reproducing abnormally? Explain how you know, referring to your graph. (What makes you think the other cells are reproducing normally?) (2 marks)

3. What do you think would happen if each cells kept reproducing at the same rate? (2 mark)

4. How long do you think it might take to identify that there are cells that are reproducing abnormally? Justify you answer. (2 marks)

5. Pretend you are a doctor.
 - a. What would you do to study the cells that are not reproducing normally? (2 marks)

 - b. If you identified that the abnormal cells were cancer, suggest and explain three possible courses of action, explaining when each might be most appropriate to use. (6 marks)