

Name \_\_\_\_\_

Date \_\_\_\_\_

### Homework 5.3: Regulation of the Cell Cycle

#### KEY CONCEPT

Cell cycle regulation is necessary for healthy growth.

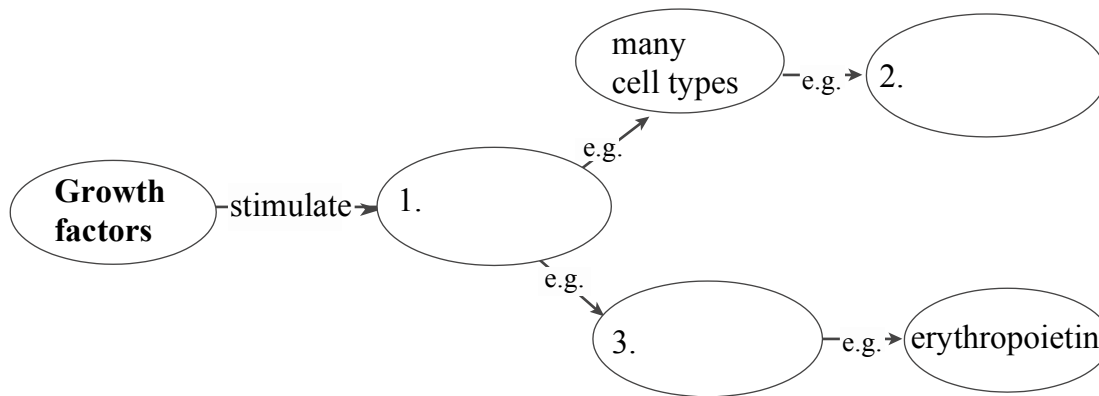
#### VOCABULARY

growth factor	benign	carcinogen
apoptosis	malignant	
cancer	metastasize	

**MAIN IDEA:** Internal and external factors regulate cell division.

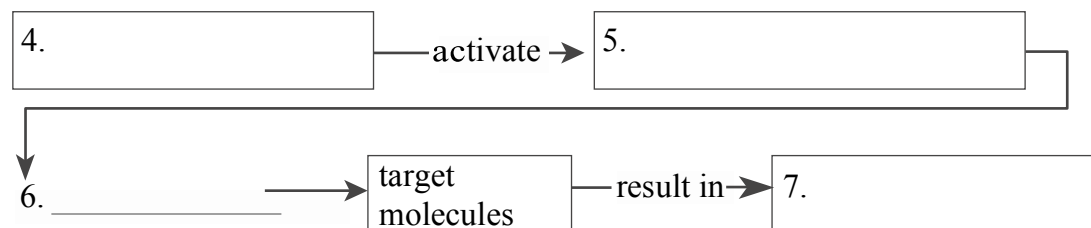
Place each phrase from the box in the correct location to complete the concept map, which shows important ideas about growth factors.

specific cells	platelet-derived growth factor	cell division
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Use the word bank to complete the sequence diagram below.

kinases	cell division	phosphorylate	cyclins
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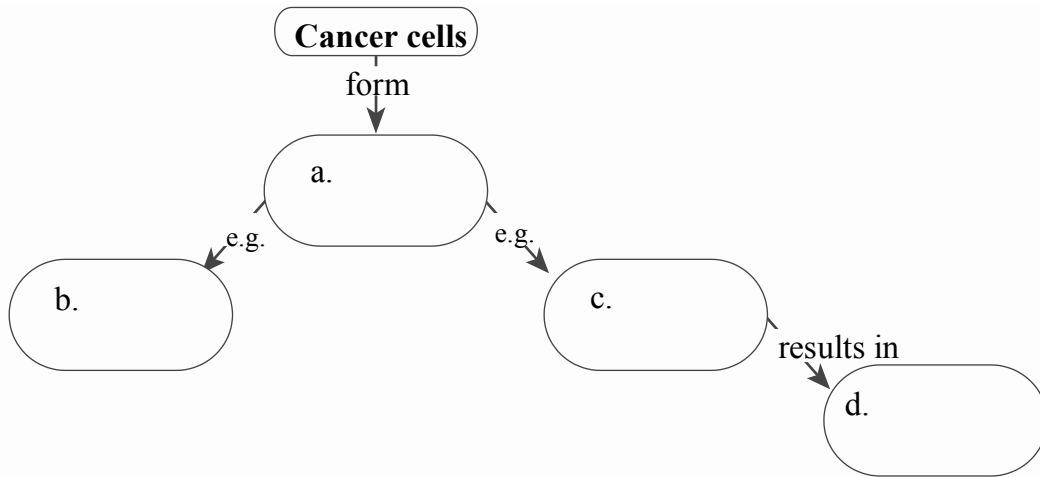
8. What is apoptosis?
- a. programmed cell division
  - b. programmed cell death
  - c. abnormal cell function
  - d. abnormal cell growth

**MAIN IDEA:** Cell division is uncontrolled in cancer.

9. If cell division is not properly regulated, the result may be a type of disease called \_\_\_\_\_.

10. Complete the concept map below about cancer cells by selecting from the following words.

benign	carcinogen	malignant	metastases	tumors
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## Vocabulary Check

Circle the word or phrase that best completes the statement.

11. Metastasize means to *shrink and die* / *spread and grow* by breaking away from a tumor.
12. A substance known to produce or promote the development of cancer is called a *carcinogen* / *growth factor*.
13. Draw a cartoon to help show the difference between benign and malignant.