

Test for **Polymerization** Activity

Name _____ Teacher _____

Date _____ Class _____

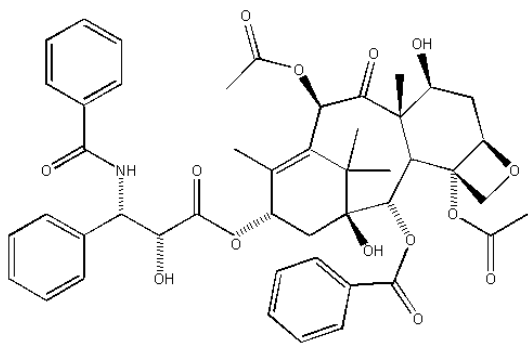
Check one:

Pretest

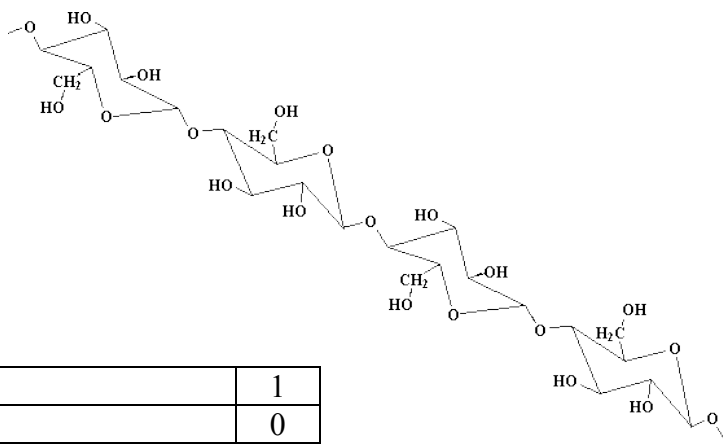
Posttest

1) a) Which of the following two molecules would be considered a polymer? Circle the polymer.

Taxol



Cellulose

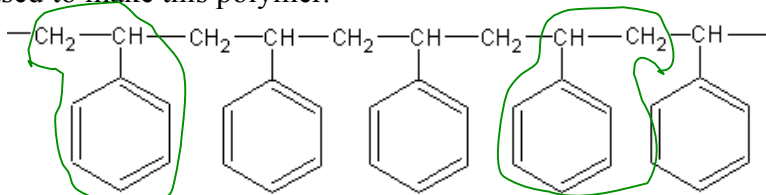


Identifies Cellulose	1
Other	0

b) Explain why you chose that molecule as a polymer.

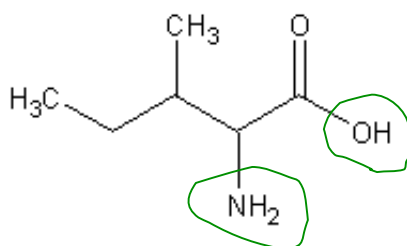
Response includes...	
Cellulose, because it is made from repeating smaller molecules called monomers.	2
Because it's got a "regular" structure. Doesn't identify repeating nature of the monomer, or identify monomer itself.	1
Other	0

2) a) Styrofoam is made from the polymer polystyrene, made through free-radical addition polymerization. Below is a fragment of polystyrene. Circle the monomer (styrene) used to make this polymer.



Circles the entire monomer in either form as shown above.	1
Other	0

- 3) Below is a single amino acid that can polymerize with other similar amino acids. Circle the parts of this molecule that are involved in a condensation reaction (one that has a byproduct of water.).



Circles both functional groups.	2
Circles one functional group from above	1
Other	0

- 4) For epoxy, a resin and a hardener must be mixed together to cross-link polymers and form a plastic. What might happen if you vary the amount of resin in your mixture?

Response includes...	
The different amounts could vary the number of cross-links formed in the epoxy and that will impact the property of the epoxy.	2
Mentions that different amounts would change the properties but doesn't specify the effect on the number of cross-links formed.	1
Other	0