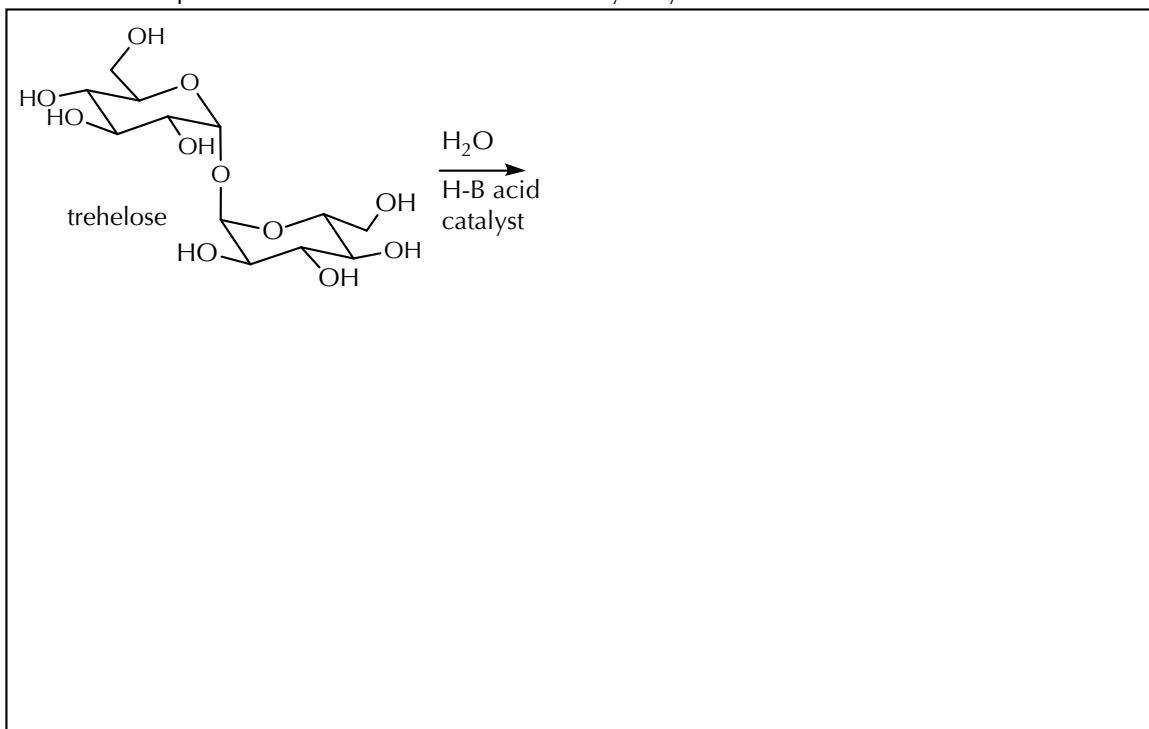


## PRACTICE QUESTIONS

16.21 Trehalose is a disaccharide found in the cocoons of insects.

- Is trehalose a reducing sugar?
- Provide the products from and mechanism for the hydrolysis of trehalose.



16.22 Raffinose is a trisaccharide found in many grains and vegetables. It is made up of a D-sucrose molecule that is bonded to a D-galactopyranose molecule. The C-6 hydroxyl group in the glucose-derived ring provides the linkage from sucrose, and it is joined at C-1 of galactopyranose with an  $\alpha$ -linkage.

- Assume that the acid-catalyzed reaction between D-sucrose and D-galactopyranose to give raffinose is selective enough to see a good yield. Draw the mechanism of formation of raffinose.
- Is raffinose a reducing sugar?

