

Alternative Activity 1.3

Description

In this activity the students will work in groups to prepare a three slide presentation describing how to find a mathematically independent subset of a set of reactions.

Objective

The objective is to make sure all the students understand the procedure for identifying an independent set of reactions.

Preparation

1. No materials other than the slides and this lesson plan are needed.
2. If possible, bring appropriate supplies so that one or two of the resulting presentations can actually be presented.
 - a. If computers and a computer projector are available, the students can use PowerPoint or something equivalent.
 - b. If an overhead projector is available, students can be supplied with three or four blank transparency sheets and markers for them.
 - c. If a visualizer is available, the students can work on paper.

Lesson Plan

1. Display the slide giving the instructions for the activity and explain it to the students
2. Form the class into groups of 2 or 3 to work on the activity
3. If you are planning to have one or two groups actually deliver their presentation, warn the class now (this may help them to take the activity more seriously).
4. Circulate among the groups as they work on their presentations
 - a. Identify a few good ones to be delivered to the class at the end of the activity
 - b. Correct misconceptions you overhear
 - c. Answer questions, but try first to get students to explain it to each other
5. Give about 3 minutes warning that the activity is about to end.
6. Select a few groups to deliver their presentations
7. Discuss and answer questions
8. Summarize
9. Optionally present the information on the second and third slides

Variations

The activity could be started with students working as individuals then, later combined into groups. Let groups compare their results to other groups. Use a pyramid scheme where once each group has a first draft, pairs of groups combine their efforts to create a single second draft; as soon as that's done, pairs of those groups combine their efforts to create a single third draft, etc.

Tips and Suggestions

As much as possible, try to get the students to teach and explain to each other.