

BSI Activity Form

Name of Activity:
FRACTION TILES

Class:
MATH 38

Topic(s):
Fraction basics, adding & subtracting fractions, like terms, equivalent fractions, converting to and from improper to proper fractions, to and from mixed and improper fractions, and basics of drawing fractions.

Prerequisite Skills: None

Materials Needed:
Pattern Blocks: 1 yellow tile, 3 red tiles, 5 blue tiles, 10 green tiles, 6 brown tiles, 14 purple tiles
Cell phone or camera to take pictures as the work through the activity

Time: 60 – 110 minutes

Grouping Description: 2 – 3 students per group (3 is ideal for this activity)

Deliverables: (What will students produce?)
One report per group as outlined in the student worksheet.

Activity Implementation:

THIS ACTIVITY IS DESIGNED TO BE COMPLETED BEFORE THE CHAPTER ON FRACTIONS.

This activity is a discovery activity. It is best NOT to tell the students what each of the tiles represents or how to add or subtract them. It may take some teams longer to “discover” how to do this, but it will greatly help their overall concept of fractions if they can make this discovery on their own. It is encouraged for the instructor to go around the room to guide students that may be struggling.

Give the students a good 10 – 15 minutes to get familiar with the tiles and to get a bit of work completed before walking around.

You should be going around to each group and asking them to show you how they used the tiles to work through each part of the activity.

After about 30 minutes of work, I stop the class and explain that they have to write a report for the activity and I go over the requirements for the report. I make sure to emphasize to students that they need to include explanations, sketches and pictures in the report. This helps students start thinking about what sketches and explanations they need to come up with for each problem.

Students need help with Part III, especially with changing all tiles to the same color to find the lowest common denominator and also changing tiles to a different color to reduce the fractions.

Some students need clarification with Part IV in what is meant by defining another tile to be the whole number.

For all problems encourage students to answer by making sketches of the fraction tiles and taking pictures. (This would be a good point to show students how to embed pictures into the document.) It works well to bring lap-tops to class and students can type answers directly on the activity sheet.