

Introduction to Algebra Tiles (Zero Pairs) - Part I



For this activity we will use only the small square units. One square is yellow and one square is red. These are opposite of each other.

As you place tiles on the overhead project have students follow what you are doing on their desks with their tiles.

You are going to place some tiles on the overhead project and remove some squares. The students will try to determine the rule for what you are doing.

- *Place 4 yellow tiles and 2 red tiles on the overhead projector. Pair two yellow tiles with two red tiles and remove them from the projector. You will be left with two yellow tiles.*
- *Place 6 red tiles and 3 yellow tiles on the overhead project. Pair three yellow tiles with three red tiles and remove them from the projector. You will be left with three red tiles.*
- *Place 5 red tiles and 7 yellow tiles on the overhead project. Pair five yellow tiles with five red tiles and remove them from the projector. You will be left with two red tiles.*
- *Place 4 yellow tiles and 1 red tiles on the overhead project. Pair one yellow tiles with one red tiles and remove them from the projector. You will be left with three yellow tiles.*
- *Place 2 red tiles and 8 yellow tiles on the overhead project. Pair two yellow tiles with two red tiles and remove them from the projector. You will be left with six yellow tiles.*

Have students try to explain to each other what the rule is that you are using with the tiles. Have a couple of students try to explain the rule to you. Try some additional examples with the students using their rule.

- *Place 3 yellow tiles and 5 red tiles on the overhead project. You will be left with two red tiles.*
- *Place 5 red tiles and 1 yellow tiles on the overhead project. You will be left with four red tiles.*

Students should state that you are making pairs of red and yellow squares and removing them from the table. Tell students these are called zero pairs.

Model additional examples and tell students they are to try to tell the number of yellow or red tiles that will remain after the zero pairs are removed.

- *Place 5 yellow tiles and 2 red tiles on the overhead project. You will be left with*

three yellow tiles.

- *Place 1 red tiles and 6 yellow tiles on the overhead project. You will be left with five yellow tiles.*
- *Place 8 red tiles and 5 yellow tiles on the overhead project. You will be left with three red tiles.*
- *Place 9 red tiles and 12 yellow tiles on the overhead project. You will be left with three yellow tiles.*
- *Place 8 red tiles and 5 yellow tiles on the overhead project. You will be left with three red tiles.*

Have students complete **Using Models to Add Integers I**. *Establish answers to each question.*