Algebra Tiles and Factoring

Monday March 18th, 2013

37 seconds

Go over the agenda.

10 minutes

Go over quiz from Friday. If students have not taken the quiz, we need to bring them into a room and let them take it.

10 minutes

Have 4 students come to the board and draw any quadratic function on a graph. Ask students how these graphs are related to factored form, and show them (7 minutes). While they are pondering our question we will be passing out the algebra tiles and allowing students to play with them for 3 minutes.

5 minutes

Demonstrate what we want them to do. Which is, person 1 will create a square and then find the standard form and then factored form of the square created. Then person 1 will just give person 2 the standard form of what they created. Then person 2 will figure out how to draw the square and its factored form. Have person 2 give their answer back to person 1, and have person 1 evaluate the work of person 2. This will be set up in pairs and each student will switch with their partner.

10-15 minutes

Have students find partner and do what we demonstrated.

5 minutes

Pick 3-4 students to go to the board and draw their square, factored form, and standard form.

Time remaining

Have class discussion on what we notice about what we did today. They should figure out how we get b and c coefficients.

If the students get stuck, these are questions we might ask them:

Have you tried counting the tiles?

What do you think you should do?

If you had to guess, what would you do?

How does this relate to the box method?

What do you notice?

How could you check your work?

Factoring Continued…

Tuesday March 19th, 2013

29 seconds

Go over the agenda.

10 minutes

Show an example of algebra tiles and box method on board. Have students come up with a different example and explain how they are related.

5 minutes

Show students the method when they have a perfect square as the c value.

5 minutes

Demonstrate a race between factoring and finding solutions with calculator. Have students guess who they think will win.

10 minutes

Have students pick partners and race using both methods. Have the winner go and tally who won on the board.

10 minutes

Have students discuss with their partner first then as a class discuss the outcome of the tallies and why they believe it went that way.

Reminding time

Factoring challenge: Each student will choose their prefered method and we will have a factoring show down by finding the solutions to quadratics.

If the students get stuck, these are questions we might ask them:

What do you think you should do?

If you had to guess, what would you do?

What do you notice?

How could you check your work?

Quadratic Formula

Wednesday March 20th, 2013