

BIG IDEAS GAME CLOSET



A Trick for You

Materials: Paper, index cards and pencil

Directions:

Entire Class

Follow these steps on a piece of paper:

- Pick a number between 1 and 100.
- Double the number.
- Add 4 to your number.
- Multiply your answer by 5.
- Divide your answer by 10.
- Subtract 2 from your answer.

What happened?

How did it happen?

- Pick a number between 1 and 100.
- Double the number.
- Add 4 to your number.
- Multiply your answer by 5.
- Divide your answer by 10.
- Subtract 2 from your answer.

Let x be your number

$$2x$$

$$2x + 4$$

$$(2x + 4)5$$

$$\frac{(2x + 4)5}{10}$$

$$10$$

$$\frac{(2x + 4)5}{10} - 2$$

$$10$$

Simplifying

$$\frac{(2x + 4)5}{10} - 2 = \frac{10x + 20}{10} - 2 = x + 2 - 2 = x$$

x is where we started.

On the index card, have each student write a number trick of their own. The solution of the trick does not have to be the original number. Collect the cards. Then shuffle the cards and pass one to each student. Have students work in groups of 3 or 4.

Who wins: The first group to correctly write the expressions for the number trick wins.