

More Amazing Algebra!!

1. Do the following.

1. Pick any number. Write it here: _____
2. Subtract two.
3. Multiply by two.
4. Add four.
5. Divide by two.

You should always get your original number!

Use algebra to show why this works. Let x be your starting number.

2. Do the following.

1. Pick any number. Write it here: _____
2. Double it.
3. Add 10.
4. Divide by 2.
5. Subtract your original number.

You should always get five!

Use algebra to show why this works.

3. Do the following.

1. Pick any number. Write it here: _____
2. Add one.
3. **Square** the answer.
4. Subtract one.
5. Subtract the square of your original number
6. Divide by two.

You should get your original number!

Use algebra to show why this works.

More difficult now!

4. Do the following.

1. Pick any number. Write it here: _____
2. Subtract two.
3. **Square** the answer.
4. Subtract four.
5. Add four times your original number
6. **Square root** the answer.

You should get your original number!

Use algebra to show why this works. Let x be your starting number.

Toughest of all!

5. Do the following.

1. Pick any number. Write it here: _____
2. **Square** the answer.
3. Add three times your original number.
4. Divide by your original number.
5. Subtract your original number.

You should always get three!

To show why this works requires some algebra we haven't learned yet.

But maybe you can figure it out?