

# MathFLIX CHALLENGE

## Algebra - Magic Tricks

### English

### Algebra

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Choose a number              | $N$                          |
| Add 10                          | $N + 10$                     |
| Subtract the original #         | $N + 10 - N$                 |
| (Secret # will always be _____) |                              |
| 2. Choose a number              | $N$                          |
| Add 10                          | $N + 10$                     |
| Subtract 1                      | $N + 10 - 1$                 |
| Add 1                           | $N + 10 - 1 + 1$             |
| Subtract original #             | $N + 10 - 1 + 1 - N$         |
| (Secret # will always be _____) |                              |
| 3. Choose a number              | $N$                          |
| Add 10                          | $N + 10$                     |
| Subtract 1                      | $N + 10 - 1$                 |
| Subtract 1                      | $N + 10 - 1 - 1$             |
| Add 2                           | $N + 10 - 1 - 1 + 2$         |
| Subtract the original #         | $N + 10 - 1 - 1 + 2 - N$     |
| (Secret # will always be _____) |                              |
| 4. Choose a number              | $N$                          |
| Add 10                          | $N + 10$                     |
| Subtract 1                      | $N + 10 - 1$                 |
| Add 1                           | $N + 10 - 1 + 1$             |
| Subtract 2                      | $N + 10 - 1 + 1 - 2$         |
| Add 2                           | $N + 10 - 1 + 1 - 2 + 2$     |
| Subtract the original #         | $N + 10 - 1 + 1 - 2 + 2 - N$ |
| (Secret # will always be _____) |                              |