

# MathFLIX CHALLENGE

## Magic Trick - I can Guess your Number!

### 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 _____) |                              |