

# It's Not Magic—It's Math!



Often number tricks appear magical, but mathematics can usually explain why the tricks work.

<b>Follow these instructions.</b>
<b>Choose any two numbers from the following list: 1, 2, 3, 4, 5, 6, 7, 8, 9</b>
<b>Multiply either number by 5.</b>
<b>Add 3 to your answer.</b>
<b>Double the sum you just wrote.</b>
<b>Add to it, the other number you started with.</b>
<b>When I call on you, tell me your final number. I will immediately tell you your 2 original numbers.</b>

Use mathematics to show how and why this works.

# Telephone Number



Often number tricks appear magical,  
but mathematics can usually explain why the tricks work.

<b>Follow these instructions.</b>
<b>Key into your calculator the first 3 digits of your phone number (not area code).</b>
<b>Multiply by 80.</b>
<b>Add 1.</b>
<b>Multiply by 250.</b>
<b>Add the last 4 digits of your phone number.</b>
<b>Add the last 4 digits of your phone number again.</b>
<b>Subtract 250.</b>
<b>Divide the amount by 2.</b>

Use mathematics to show how and why this works.

# Secret Number Tricks

Follow these instructions.

<p style="text-align: center;"><b>Secret Number Trick 1</b></p> <ol style="list-style-type: none"><li>1. Write any 2-digit <i>secret number</i>.</li><li>2. Double it.</li><li>3. Add 9.</li><li>4. Add your <i>secret number</i>.</li><li>5. Divide by 3.</li><li>6. Add 3.</li><li>7. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>8. Use mathematics to show how and why this works.</li></ol>	<p style="text-align: center;"><b>Secret Number Trick 4</b></p> <ol style="list-style-type: none"><li>1. Write any <i>secret number</i> on paper.</li><li>2. Add 10.</li><li>3. Subtract 3.</li><li>4. Add 5.</li><li>5. Subtract 11.</li><li>6. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>7. Use mathematics to show how and why this works.</li></ol>
<p style="text-align: center;"><b>Secret Number Trick 2</b></p> <ol style="list-style-type: none"><li>1. Write any <i>secret number</i> on paper.</li><li>2. Add 3.</li><li>3. Multiply by 2.</li><li>4. Add 4.</li><li>5. Divide by 2.</li><li>6. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>7. Use mathematics to show how and why this works.</li></ol>	<p style="text-align: center;"><b>Secret Number Trick 5</b></p> <ol style="list-style-type: none"><li>1. Write any <i>secret number</i> on paper.</li><li>2. Add the next larger number.</li><li>3. Subtract 1.</li><li>4. Multiply by 5.</li><li>5. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>6. Use mathematics to show how and why this works.</li></ol>
<p style="text-align: center;"><b>Secret Number Trick 3</b></p> <ol style="list-style-type: none"><li>1. Write any <i>secret number</i> on paper.</li><li>2. Add the next larger number.</li><li>3. Add 7.</li><li>4. Divide by 2.</li><li>5. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>6. Use mathematics to show how and why this works.</li></ol>	<p style="text-align: center;"><b>Secret Number Trick 6</b></p> <ol style="list-style-type: none"><li>1. Write any <i>secret number</i> on paper.</li><li>2. Add the number on either side of it.</li><li>3. Tell me what you have, and I will tell you your <i>secret number</i>.</li><li>4. Use mathematics to show how and why this works.</li></ol>