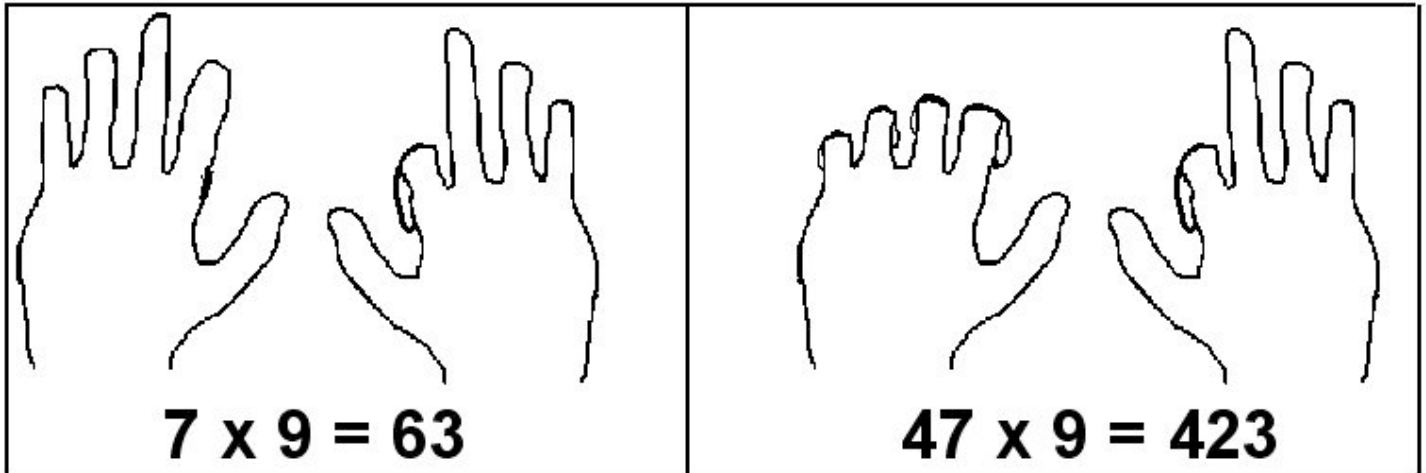


How to Use Your Fingers to Multiply by Nine

In the diagrams below, I show you a neat way to use your fingers to multiply a one digit number by 9 (in the left panel) which a lot of people already know. In the right panel, I show you a neat way to use your fingers to multiply some two-digit numbers by 9. For this trick, we call our “thumb” a “finger” as well.



In the left panel, we are multiplying by 7, so we turn over our 7th finger. Count the fingers to the left of your turned over finger and you get 6 fingers. Count the fingers to the right of your turned over finger and you get 3 fingers. Put the 6 and the 3 together to get 63, and this is the answer to 7×9 !

In the right panel, we are multiplying by 47, so first of all we take the tens digit of 47 and turn over 4 fingers to represent “**400**”. Then we take the units digit of 47 and turn over our 7th finger. Count the fingers to the left of your turned over finger and to the right of the 4 turned down fingers. You get 2 fingers (the two thumbs) and this represents “**20**”. Count the fingers to the right of your turned over finger and you get **3** fingers. Put the 400 and the 3 together to get 63, and this is the answer to 7×9 ! Adding $400 + 20 + 3$, gives you the answer of 423 !

Try some of your own, and see how it works. What happens if the number you are multiplying nine by has the unit’s digit is smaller than the ten’s digit?