

Get the Facts

Card and Dice Games

1. FLIP

Concept: Addition or Multiplication Facts

Materials: a deck of cards: 2-9 and Ace (as a one) only

Directions:

This card game is played much like the traditional card game "War". Deal all of the cards evenly to each player. To play the game, each player flips over the top two cards from their pile. The player with the greatest sum or product wins and collects all the face up cards from each player. (If there is a tie for the greatest sum or product, the players who have tied flip one more card the player with the highest card becomes the winner.) The object of the game is to be the player with the most cards.

2. Multiplication/Addition WAR

Concept: Multiplication/Addition Facts

Materials: a deck of cards: 2-9 and Ace (as a one) only

Directions:

This card game is played much like the traditional card game "War". Deal all of the cards evenly to each player. At the same time each player turns over their top card. The first person to say the product of the two cards wins the cards. Play continues until one player has collected all the cards.

Multiplication Tic-Tac-Toe

Players use cubes in two different colors. The first player chooses two factors (from 1–9 underneath the gameboard), places a paper clip on each, and marks the product on the gameboard with a cube. The second player moves one of the paper clips to a new factor, finds the product, and marks the product with a different color cube. Play continues until one player has marked four products in a row, column, or diagonal. Note: When moving a paper clip, it's legal to move it to the same factor of the other paper clip to allow for plays such as 5×5 .

| | | | | | |
|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 12 | 14 |
| 15 | 16 | 18 | 20 | 21 | 24 |
| 25 | 27 | 28 | 30 | 32 | 35 |
| 36 | 40 | 42 | 45 | 48 | 49 |
| 54 | 56 | 63 | 64 | 72 | 81 |

1 2 3 4 5 6 7 8 9

Tips for Remembering the 9s Multiplication Facts

The digit in the tens place is one less than the factor being multiplied by 9!

Ex. - $\overset{\text{one less}}{\downarrow}$
 $9 \times 4 = \underline{3} + \underline{6} = 9$
 _{tens} _{ones}

The digits all add to 9!

$9 \times 1 = 09$
 $9 \times 2 = 18$
 $9 \times 3 = 27$
 $9 \times 4 = 36$
 $9 \times 5 = 45$
 $9 \times 6 = 54$
 $9 \times 7 = 63$
 $9 \times 8 = 72$
 $9 \times 9 = 81$
 $9 \times 10 = 90$

The product reverse for these facts

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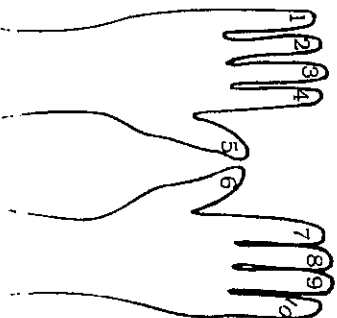


Multiplying by 9

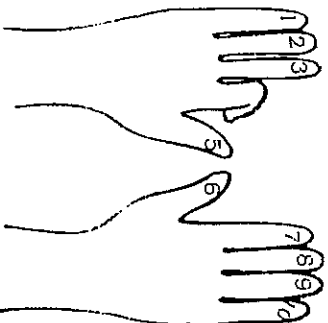
Finger multiplication for the 9s is far less involved than it is for the 6s, 7s, and 8s.

Here's how to do it:

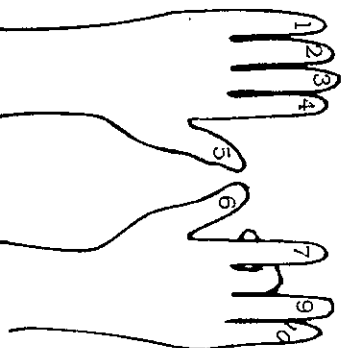
Have children hold out their hands, palms down. Each finger is given a number from 1 to 10, starting from the left.



Suppose students wish to multiply 9 by 4. They simply tuck under finger number 4. That leaves three fingers to the left of it and six fingers to the right of it, which stands for 36. $9 \times 4 = 36$.



Here's another example. For 9 times 8, children tuck under finger number 8. This leaves seven fingers to the left of it and two fingers to the right of it, or 72. $9 \times 8 = 72$.



Have students use this method to multiply other numbers between 1 and 9 by 9. It works every time. And no batteries are required.

Notes

STRATEGIES FOR MULTIPLICATION FACTS

1's - Same number ex. $6 \times 1 = 6$

2's - Double the number ex. $2 \times 4 = 8$ (doubled the 4)

3's - Double the number and add one more set
ex. $3 \times 6 =$ (double 6 plus another 6) = 18

4's - Double Double = Double the number and Double its sum again
ex. $4 \times 7 = 7+7=14$ and $14 + 14 = 28$

5's - Count by 5's

6's - Solve for $\times 5$ then add one more set

ex. $6 \times 4 = (5 \times 4 = 20)$ then add 4 more = 24

9's - Finger trick

Open up hands and count 1 - 10 assigning a number to each finger. Put down the numbered finger from the problem and count the fingers to the left of the finger that is down. This is the first digit in your answer. Count the number of fingers to the right. This is your second digit. ex. $9 \times 4 = 36$ (Three fingers to the left and 4 fingers to the right).

10's - Add a zero