Subtraction strategies.

Being able to recall time tables is a key part of mathematics. Some children find memorising and recalling number facts too difficult.

Combination of hand on strategies and techniques makes learning number facts easier and less frustrating.

Using fingers as a substitute for a number line.

We do not have a number line in our pocket, but we have 10 fingers ready to be used whenever the need arises. Just as we use the number line to understand and learn the basic mathematical calculations, the fingers help us to learn, memorise and recall accurately all the useful number facts.

Using fingers as a substitute for a number line is an easy way to learn and recall the multiples of any number. As each finger represents a particular multiple, it is not difficult to visualise and recall the time tables.

Fingers can be compared to the Chinese or Russian abacus, which has been used in banks and businesses successfully for centuries.
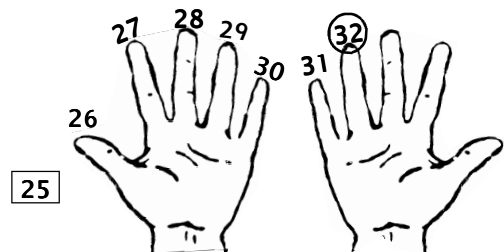
Using fingers to add.

Fingers may form a number line.

$$25 + 7 = \mathbf{32}$$

Add 7 numbers onto 25.
Say 25 and then start touching or opening fingers counting to the seventh finger; 26, 27, 28, 29, 30, 31, **32**.
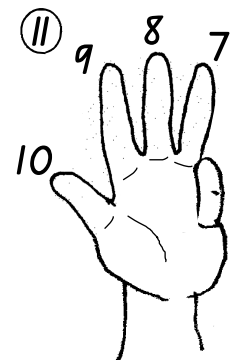
Using fingers to subtract.

Count back.

$$11 - 4 =$$

Open up 4 fingers, touch the number eleven and then go on touching each finger as you count back 10, 9, 8, 7.
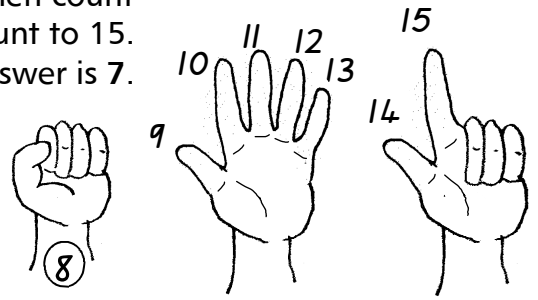The answer is **7**.

Mental Arithmetic   © *Jays' Education*

Count on.

$15 - 8 = 7$

Touch the number eight and then count on, opening fingers as you count to 15. The answer is **7**.

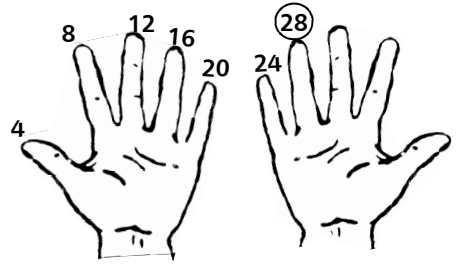$8 + \boxed{7} = 15$ <u>therefore</u> $15 - 8 = \boxed{7}$

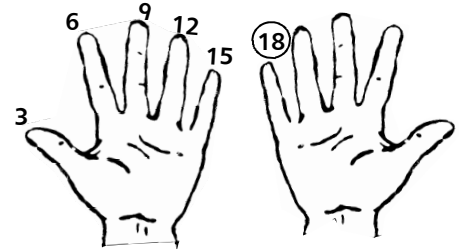7 fingers are open, the answer is **7**.

Using fingers to multiply.

$4 \times 7 = 28$

Count in multiples of 4 until you reach the seventh finger. The answer is **28**.

$3 \times 6 = 18$

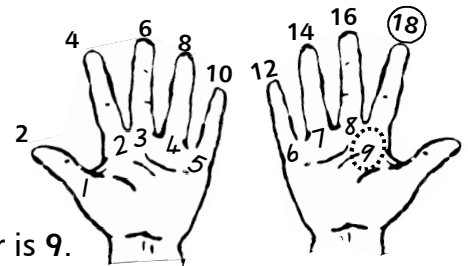Count in multiples of 3 until you reach the sixth finger. The answer is **18**.

Using fingers to divide.

$18 \div 2 = 9$

Count in multiples of 2 (divisor) until you reach the number being divided (dividend) ⑱.

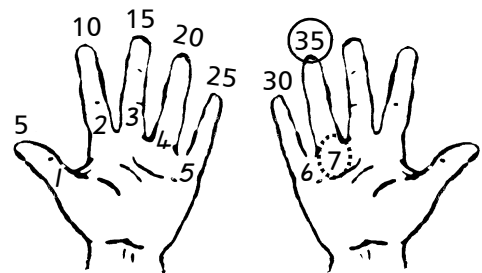18 is represented by the 9th finger, therefore the answer is **9**.
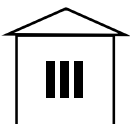
Solving fractions.

$\dfrac{1}{5}$ of 35   Solve as a division, the whole number is divided by the denominator (bottom number).
35 ÷ 5 = 7

or

$\dfrac{35}{5}$ The numerator (top number) is divided by the denominator (bottom number).
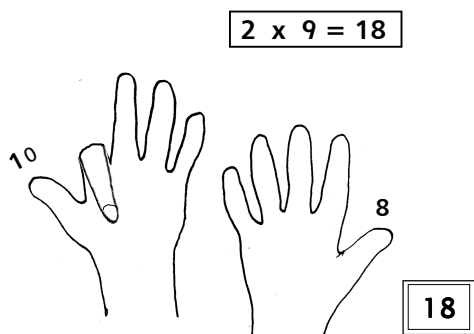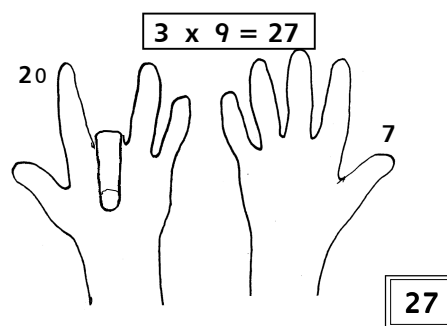**35 ÷ 5 = 7**

Count by 5s to the finger representing 35.

Using fingers to multiply by 9.

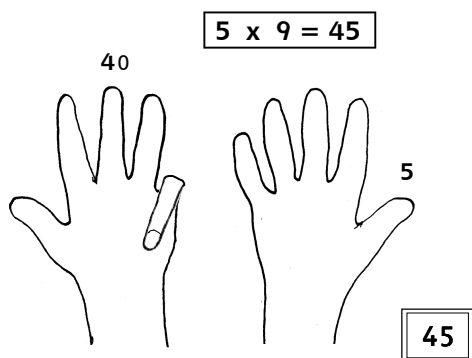The numbers before the bent finger represent tens and the numbers after the bent finger represent ones.

2 x 9 = 18

10

8

18

Bend the second finger.
The thumb represents 10
(it is in the tens position).

The rest of the fingers represent 8.

3 x 9 = 27

20

7

27

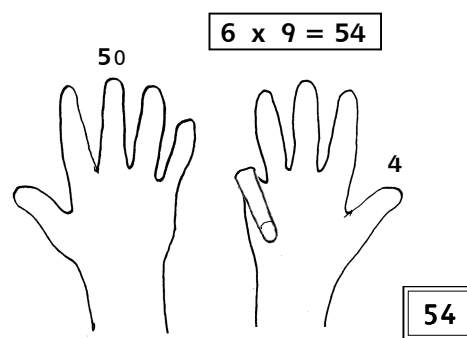Bend the third finger.
The thumb and the index represent 20.

The rest of the fingers represent 7.

5 x 9 = 45

40

5

45

Bend the fifth finger.
The left thumb and the next three
fingers represent 40.

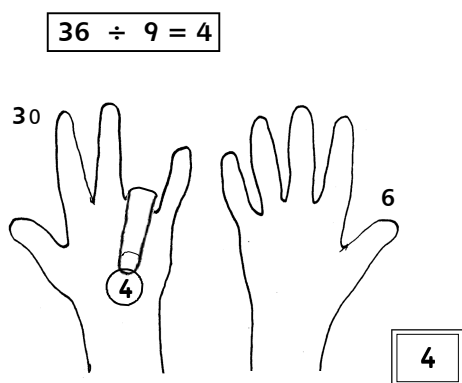The rest of the fingers represent 5.

6 x 9 = 54

50

4

54

Bend the sixth finger.
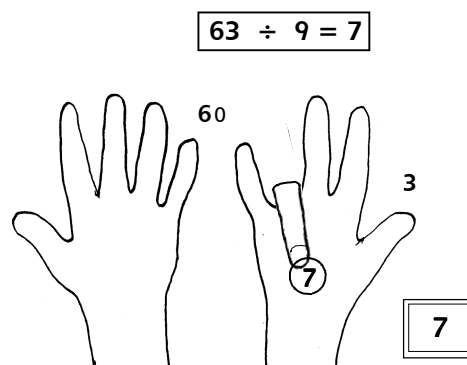The five fingers on the left hand
represent 50.

The rest of the fingers represent 6.

Using fingers to divide by 9.

Make up the number to divide and the bent finger will be the answer.

36 ÷ 9 = 4

30

6

4

4

Make up 36, 3 tens and 6 ones.
The bent finger is in the fourth
position; the answer is **4**.

63 ÷ 9 = 7

60

3

7

7

Make up 63, 6 tens and 3 ones.
The bent finger is in the seventh
position; the answer is **7**.