



MENTAL MATHEMATICS

Strategies for Young Learners

(Part 2)

MENTAL MATHEMATICS RELATES TO NUMBER SENSE.

Students with good number sense can calculate in their head. Everyone can learn to calculate or solve problems quickly using mental mathematics. In this lesson you will learn to develop some mental mathematics strategies.



MENTAL MATHEMATICS RELATES TO NUMBER SENSE.

You will learn to develop the following mental mathematics strategies.

- ❖ Jump strategy
- ❖ Split strategy
- ❖ Bridging to tens strategy



JUMP STRATEGY

A strategy that starts from the largest number and jump forward from it to get to the final answer.

Ex. $42 + 23 =$

$42 + 10 + 10 + 1 + 1 + 1$



JUMP STRATEGY

Solve the problem, $16 + 81$ using the jump strategy. Remember to start with the larger number.

$$\begin{aligned} & 16 + 81 = \\ & \mathbf{81} + 10 + 1 + 1 + 1 + 1 + 1 + 1 \\ & = \mathbf{97} \quad (\text{Answer}) \end{aligned}$$



81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98

SPLIT STRATEGY

The numbers in the equation are 'split' into tens and ones, added separately, and then they are put.

$$\begin{array}{c} 53 + 26 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 50 + 3 + 20 + 6 \end{array}$$

$$50 + 20 = 70 \quad 3 + 6 = 9$$

$$70 + 9 = 79 \text{ (Answer)}$$

Why do you think this strategy is called the split strategy?

CHALLENGE

#1

Use base ten blocks or counters to help you solve this problem.

Mark has \$57 and Lucy has \$24. How many does both have?



CHALLENGE

#1

Mark has \$57 and
Lucy has \$24. How
many does both
have?

$$\begin{array}{r} 57 + 24 \\ \swarrow \quad \downarrow \quad \downarrow \quad \searrow \\ 50 + 7 + 20 + 4 \\ 50 + 20 = 70 \\ 7 + 4 = 11 \\ 70 + 11 = 81 \end{array}$$

Answer = \$81

CHALLENGE

#2. Mr. Vernon has to buy 89 coloured pencils for the children in his morning Art Classes and 53 children in his evening class. How much should he buy for the kids in his evening class?



CHALLENGE

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$$89 + 53$$

$$80 + 9 + 50 + 3$$

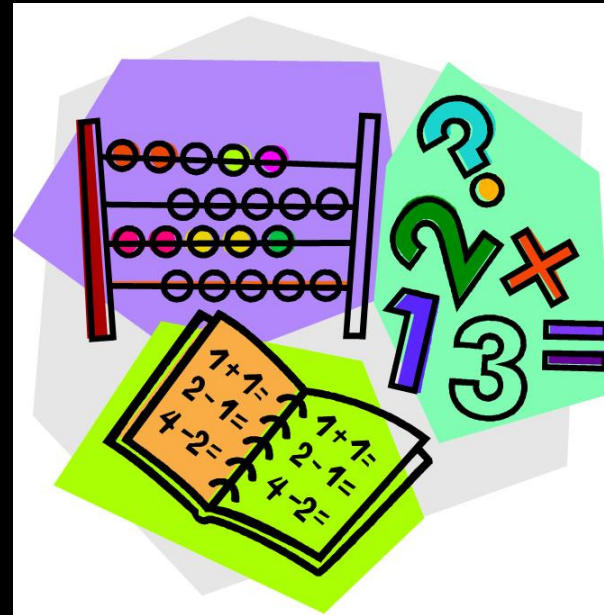
$$80 + 50 = 130$$

$$9 + 3 = 12$$

$$130 + 12 = 142$$

CHALLENGE

#3. Use the split strategy to solve: $65 + 12$.



CHALLENGE

#3. Use the split strategy to solve: $65 + 12$.

- $65 + 12 =$

- $60 + 10 = 70$

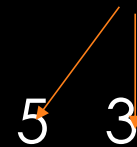
- $5 + 2 = 77$ (Answer)

BRIDGING TO TENS STRATEGY

**Bridge through 10 first
and make the number
up to 10.**

For example:

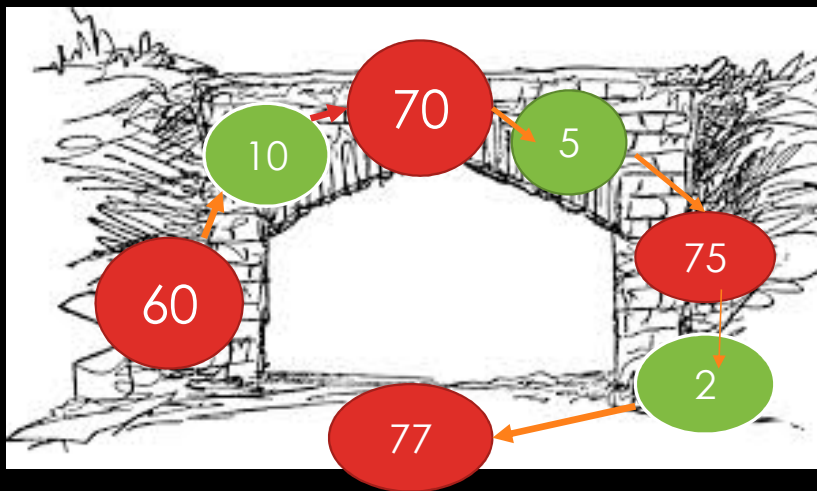
$$15 + 8 =$$



$$15 + 5 = 20 + 8 = 28$$

CHALLENGE

#3. Use the split strategy to solve: $65 + 12$.



$$65 + 12$$

$$60 + 10 = 70$$

$$5 + 2 = 7$$

$$\text{Answer} = 70 + 7 = 77$$

CHALLENGE

#3

Susan bought a bag of apples for \$6, a large soda for \$9. How much did she spend?



CHALLENGE

#3

Susan bought a bag of apples for \$6, a large soda for \$9. How much did she spend?

$$6 + 9 = ?$$

$$5 + 1 + 9 =$$

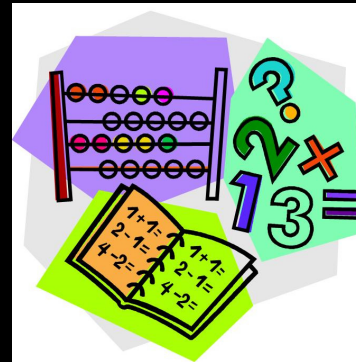
$$1 + 9 = 10 + 5 = 15$$

She spent \$15.

CHALLENGE

#4

Susan got \$12 from her Mom, \$16 from her Dad. How much did she get in total?



CHALLENGE

#4

Susan got \$12 from her Mom, \$16 from her Dad. How much did she get in total?

- $12 + 16$

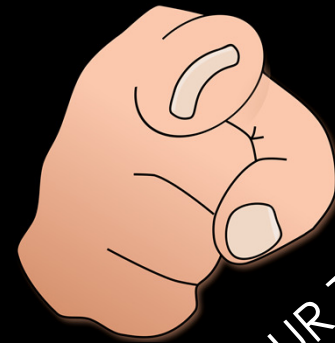
- $12 + 8 + 8 =$

- $12 + 8 = 20$

- $20 + 8 = 28$

CHALLENGE

#5. James picked 15 apples while Jon picked 9 apples. How much apples were picked?



YOUR TURN.

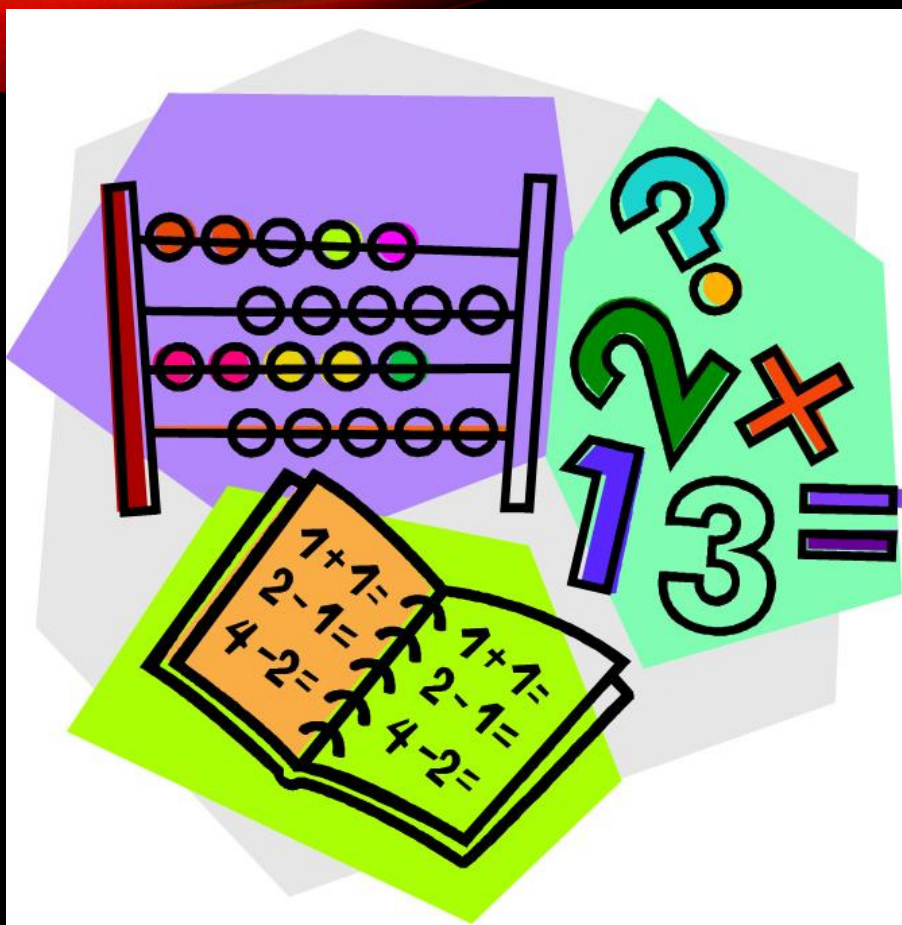
CHALLENGE

#5. James picked 15 apples while Jon picked 9 apples. How much apples were picked?

- $15 + 9$

- $15 + 5 + 4$

- $15 + 5 = 20 + 4 = 24$



SUMMARY

There are few mental strategies you can use to solve some simple mathematical problems, such as:

- ❖ Moving around numbers,
- ❖ Grouping numbers to add,
- ❖ Add two and subtract two,
- ❖ Double facts ,
- ❖ Ten facts , and
- ❖ Related addition and subtraction facts,
- ❖ Jump strategy,
- ❖ Split strategy, and
- ❖ Bridging to tens strategy.