

L.O. TO SOLVE PROBLEMS USING TRIAL AND IMPROVEMENT

Friday

What is trial and improvement?

- Trial and improvement is a problem solving strategy
- In this strategy each attempt at an answer gives you more information and helps you to find the correct solution
- Each question will give you one or more rules and ask you to find a number that obeys the rules. Use trial and improvement to find the correct number.

Detective Oswald Mallory

Detective Oswald looked for a number.

He was looking at numbers 11, 12, 13, 14 and 15.

He wants to find a number where the sum of the digits was 6.

Which number did he find?

He looked again at the same numbers. This time he wanted to find a number where one of its digits was half of the other.

Which number did he find?



Detective Oswald Mallory

Detective Oswald looked for a number.

He was looking at numbers 11, 12, 13, 14 and 15.

He wants to find a number where the sum of the digits was 6.

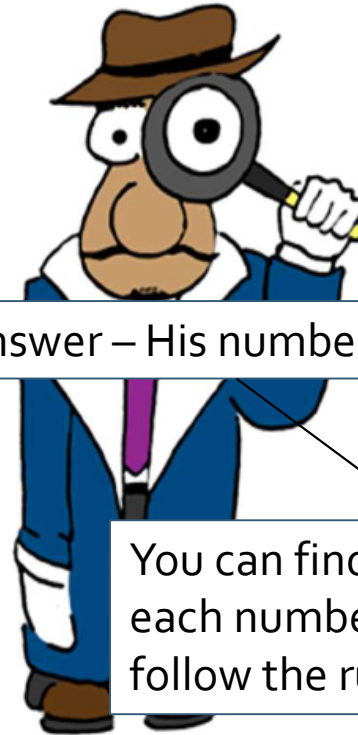
Which number did he find?

Answer – His number was 15

He looked again at the same numbers. This time he wanted to find a number where one of its digits was half of the other.

Which number did he find?

Answer – His number was 12



Detective Oswald Mallory

Detective Oswald looked for a number.

He found a two-digit number less than 20.

The sum of its digits was 6 and
the difference between them was
4.

What number did Oswald find?

He looked again at the two
digit number less than 20.
This time he found a number
where one of the digits was 5
more than the other.

Which number did Oswald find?



Detective Oswald Mallory

Detective Oswald looked for a number.

He found a two-digit number less than 20.

The sum of its digits was 6 and
the difference between them was
4.

What number did Oswald find?

Answer – His number was 15

He looked again at the two
digit number less than 20.
This time he found a number
where one of the digits was 5
more than the other.

Which number did Oswald find?

Answer – His number was 16



Detective Oswald Mallory

Detective Oswald Mallory was looking for a number.

He found a two digit number less than 30. The sum of the digits was 10 and the difference was 6.

What number did he find?

Oswald looked again at the two-digit numbers less than 30.

He found an odd number where one of the digits was half of the other.

Which number did he find?



Detective Oswald Mallory

Detective Oswald Mallory was looking for a number.

He found a two digit number less than 30. The sum of the digits was 10 and the difference was 6.

What number did he find?

Answer – His number was 28

Oswald looked again at the two-digit numbers less than 30.

He found an odd number where one of the digits was half of the other.

Which number did he find?

Answer – His number was 21



Detective Oswald Mallory

Detective Oswald Mallory was looking for number.

He looked at the two-digit numbers less than 40.

He found a number where the sum of the digits was 12 and the difference was 6.

What number did he find?

Oswald looked again at the two digit numbers less than 40.

He found a two-digit number less than 40.

One digit was three times greater than the other.

The number was even.

Which number did he find?



Detective Oswald Mallory

Detective Oswald Mallory was looking for number.

He looked at the two-digit numbers less than 40.

He found a number where the sum of the digits was 12 and the difference was 6.

What number did he find?

Answer – His number was 39

Oswald looked again at the two digit numbers less than 40.

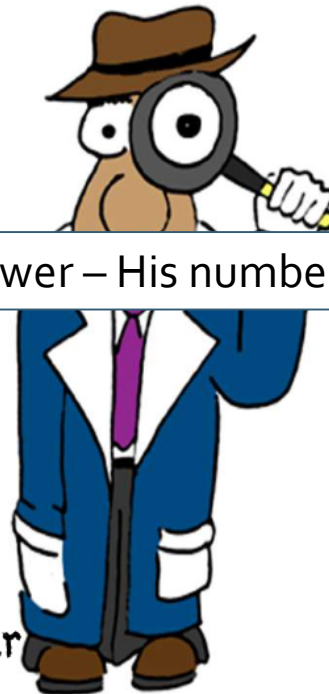
He found a two-digit number less than 40.

One digit was three times greater than the other.

The number was even.

Which number did he find?

Answer – His number was 26



Task

Detective Oswald looked for a number.
He found a two-digit number less than 50.
The sum of its digits was 12.
Their difference was 4.

What number did Oswald find?

Detective Oswald found a
two-digit odd number.
One of its digits was
half the other.
The number was greater
than 50.

What number did Oswald find?

