

Answer the following questions

$$34 \times 45 =$$

$$198 \times 23 =$$

$$1,982 \times 36 =$$



Remember to set out the questions properly.



Put the answers in descending order.

**RECALL**

LO: Use knowledge of multiplying and dividing to solve problems

Some will even find multiple solutions.

Some will find work in a systematic way.

Most will use a solve the problem.

All will use a trial and error method.

**LEARNING HABIT RESILIENCE.** |

Put operations signs (+ or - or  $\times$  or  $\div$ ) between the numbers 3, 4, 5, 6 to make the highest possible number and lowest possible number.

How about trying with numbers 1, 2, 3, 4, 5 and 6?



# PROBLEM NUMBER 1

Put operations signs (+ or - or  $\times$  or  $\div$ ) between the numbers 3, 4, 5, 6 to make the highest possible number and lowest possible number.

How about trying with numbers 1, 2, 3, 4, 5 and 6?



Highest number

$$2 \times 3 = 6$$

$$6 \times 4 = 24$$

$$24 \times 5 = 120$$

$$120 \times 6 = 720$$

If you add one to your total you get a total of 721.

$$720 + 1 = 721$$

PROBLEM NUMBER  
1 ANSWERS

$$\begin{array}{r}
 1 \ a \ b \ c \ d \ e \\
 \times \phantom{1 \ a \ b \ c \ d \ e} \\
 \hline
 a \ b \ c \ d \ e \ 1
 \end{array}$$

$$\begin{array}{r}
 2 \ f \ g \ h \ i \ j \\
 \times \phantom{2 \ f \ g \ h \ i \ j} \\
 \hline
 f \ g \ h \ i \ j \ 2
 \end{array}$$

Can you replace the letters with numbers?  
Is there only one solution in each case?

1 4 2 8 5 7

x 3

4 2 8 5 7 1

and

2 8 5 7 1 4

x 3

8 5 7 1 4 2

PROBLEM NUMBER 1  
ANSWERS

This represents the multiplication of a 4-figure number by 3.

$$\begin{array}{r} \text{☆} \text{☆} \text{☆} \text{☆} \\ \times \quad \quad \quad \quad \quad 3 \\ \hline \text{☆} \text{☆} \text{☆} \text{☆} \text{☆} \end{array}$$

The whole calculation uses each of the digits 0 – 9 once and once only.

The 4-figure number contains three consecutive numbers, which are not in order. The third digit is the sum of two of the consecutive numbers.

The first, third and fifth figures of the five-digit product are three consecutive numbers, again not in order. The second and fourth digits are also consecutive numbers.

Can you replace the stars in the calculation with figures?

$$\begin{array}{r} 5694 \\ \times \quad 3 \\ \hline 17082 \end{array}$$

## PROBLEM NUMBER 2 ANSWERS

This represents the multiplication of a 4-figure number by 3.

$$\begin{array}{r} \text{★} \text{★} \text{★} \text{★} \\ \times \phantom{\text{★} \text{★} \text{★} \text{★}} \\ \hline \text{★} \text{★} \text{★} \text{★} \text{★} \end{array}$$

The whole calculation uses each of the digits 0 – 9 once and once only.

The 4-figure number contains three consecutive numbers, which are not in order. The third digit is the sum of two of the consecutive numbers.

The first, third and fifth figures of the five-digit product are three consecutive numbers, again not in order. The second and fourth digits are also consecutive numbers.

Can you replace the stars in the calculation with figures?

## PROBLEM NUMBER 2