Mental multiplication strategies – split strategy

The split strategy is when we multiply numbers in 2 pairs and then add the parts.
Let's use the split strategy for 26×4.

- Split 26 into 20 and 6.
- Multiply each part.
- Add the answers together.

$$26 \times 4 \longrightarrow 20 \times 4 + 6 \times 4$$

$$80 + 24 = 104$$

$$\text{So, } 26 \times 4 = 104$$

1 **Use the split strategy to answer these:**

a $34 \times 3 \longrightarrow$ $30 \quad \times \quad 3 \quad + \quad 4 \quad \times \quad 3$

$90 \quad + \boxed{} = \boxed{}$

So, $34 \times 3 = \boxed{}$

b $45 \times 5 \longrightarrow$ $\boxed{} \times \boxed{} + \boxed{} \times \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

So, $45 \times 5 = \boxed{}$

c $52 \times 4 \longrightarrow$ $\boxed{} \times \boxed{} + \boxed{} \times \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

So, $52 \times 4 = \boxed{}$

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Mental multiplication strategies – split strategy

Sometimes it's easier to split a number into parts and work with the parts separately.

Look at 64 × 8
Split the number into 60 and 4
Work out (60 × 8) and then (4 × 8)
Add the answers together 480 + 32 = 512

1 Use the split strategy to answer the questions:

a 46 × 4

(40 × 4) + (6 × 4)

_____ + _____

= [ ]

b 74 × 5

(__ × __) + (__ × __)

_____ + _____

= [ ]

c 48 × 4

(__ × __) + (__ × __)

_____ + _____

= [ ]

d 37 × 7

(__ × __) + (__ × __)

_____ + _____

= [ ]

e 62 × 8

(__ × __) + (__ × __)

_____ + _____

= [ ]

f 91 × 5

(__ × __) + (__ × __)

_____ + _____

= [ ]

2 Use the split strategy to answer the questions. This time see if you can do the brackets in your head:

a 48 × 8 = _____ + _____ = [ ]

b 52 × 7 = _____ + _____ = [ ]

c 9 × 43 = _____ + _____ = [ ]

d 8 × 29 = _____ + _____ = [ ]

e 86 × 7 = _____ + _____ = [ ]

It's a good thing I know how to work with multiples of ten in my head!

THINK

3 These problems have been worked out incorrectly. Circle where it all went wrong.

a 37 × 6

(30 × 6) + (7 × 6)

180 + 13

= 193

b 17 × 5

(10 × 5) + (7 × 5)

70 + 35

= 105

c 32 × 9

(30 × 9) + (2 × 9)

27 + 18

= 45

Mental multiplication strategies – split strategy

4 Each trail contains 2 multiplication problems and steps to solve them. Only one trail has been solved correctly. There are errors in the other two. Find and colour the winning trail.

FINISH

| 78 |

| 291 |

| 114 |

| $(30 \times 9) + (3 \times 9)$ |

| $(10 \times 6) + (3 \times 6)$ |

| $(10 \times 9) + (6 \times 9)$ |

| 13×6 |

| 33×9 |

| 16×9 |

| 464 |

| 294 |

| 51 |

| $(40 \times 7) + (2 \times 7)$ |

| $400 + 64$ |

| $30 + 21$ |

| 42×7 |

| 58×8 |

| 17×3 |

START

Multiplication and Division

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