

LOOKING AT MENTAL STRATEGIES – MULTIPLICATION

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Which strategy is more efficient?

1 18×8

$$\begin{aligned} 18 \times 8 &= (18 \times 10) - (18 \times 2) \\ &= 180 - 36 \\ &= 180 - 30 - 6 \\ &= 150 - 6 \\ &= \mathbf{144} \end{aligned}$$

(Using rounding and compensating)

or

$$\begin{aligned} 18 \times 8 &= 36 \times 4 \\ &= 72 \times 2 \\ &= \mathbf{144} \end{aligned}$$

(Using doubling and halving)

2 68×5

$$\begin{aligned} 68 \times 5 &= (60 \times 5) + (8 \times 5) \\ &= 300 + 40 \\ &= \mathbf{340} \end{aligned}$$

(Using place value partitioning)

or

$$\begin{aligned} 68 \times 5 &= 34 \times 10 \\ &= \mathbf{340} \end{aligned}$$

(Using doubling and halving)

LOOKING AT MENTAL STRATEGIES – MULTIPLICATION CONTINUED

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Which strategy is more efficient?

3 15×6

$$\begin{aligned} 15 \times 6 &= (10 \times 6) + (5 \times 6) \quad (\text{Using place value partitioning}) \\ &= 60 + 30 \\ &= \mathbf{90} \end{aligned}$$

or

$$\begin{aligned} 15 \times 6 &= 45 \times 2 \quad (\text{Using trebling and thirding}) \\ &= \mathbf{90} \end{aligned}$$