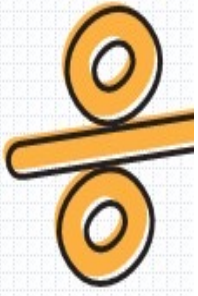
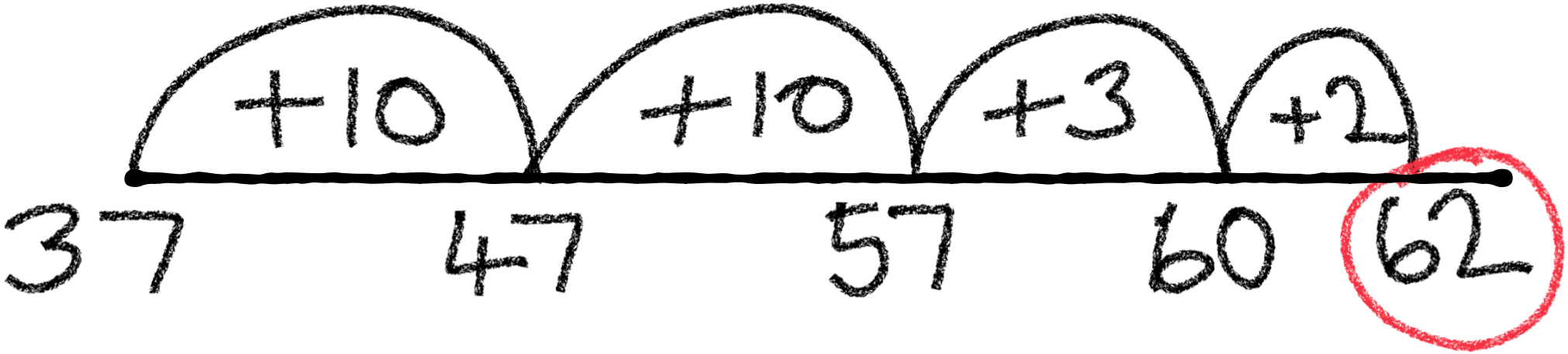
Glasgow Counts Strategies

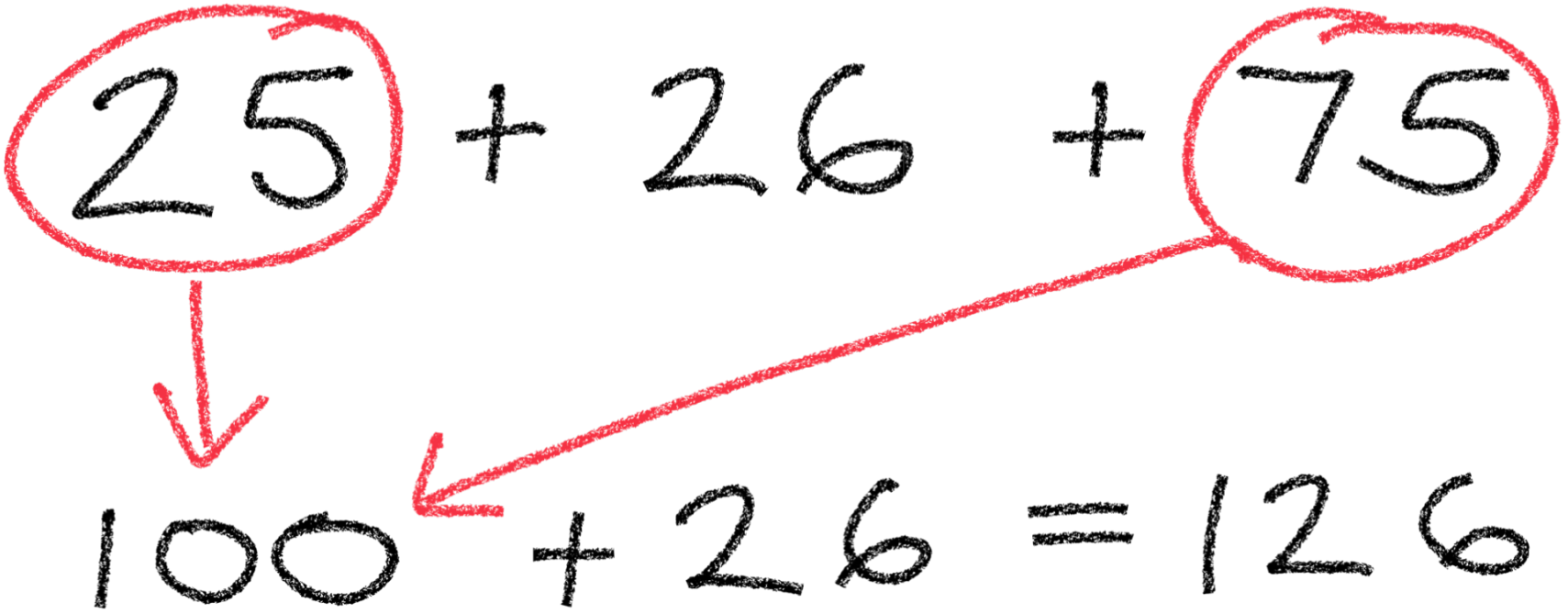


Addition Strategy: Count On

$37 + 25 = 62$



Addition Strategy: Reordering



Addition Strategy: Partitioning

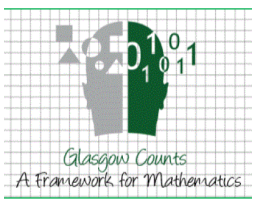
116 + 127

100 + 100 = 200

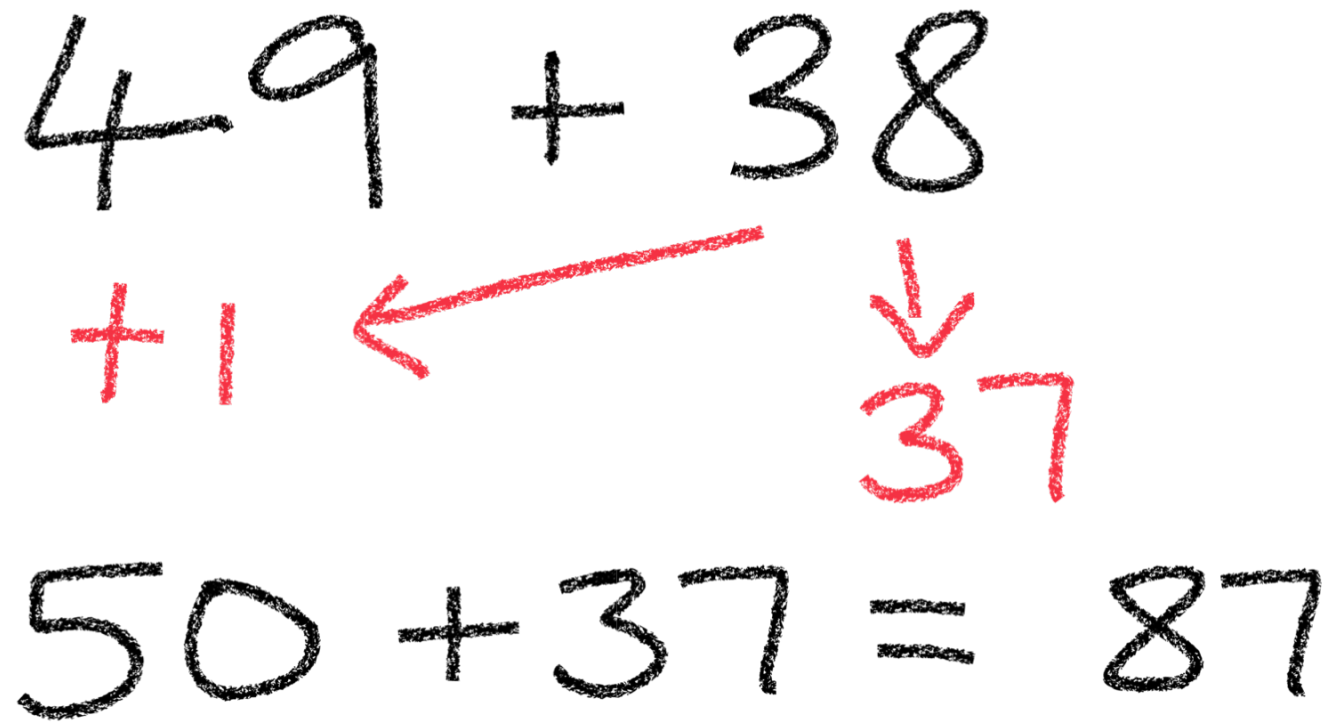
10 + 20 = 30

6 + 7 = 13

200 + 30 + 13 = 243



Addition Strategy:
Making tens/bridging through 10



Addition Strategy: Compensation

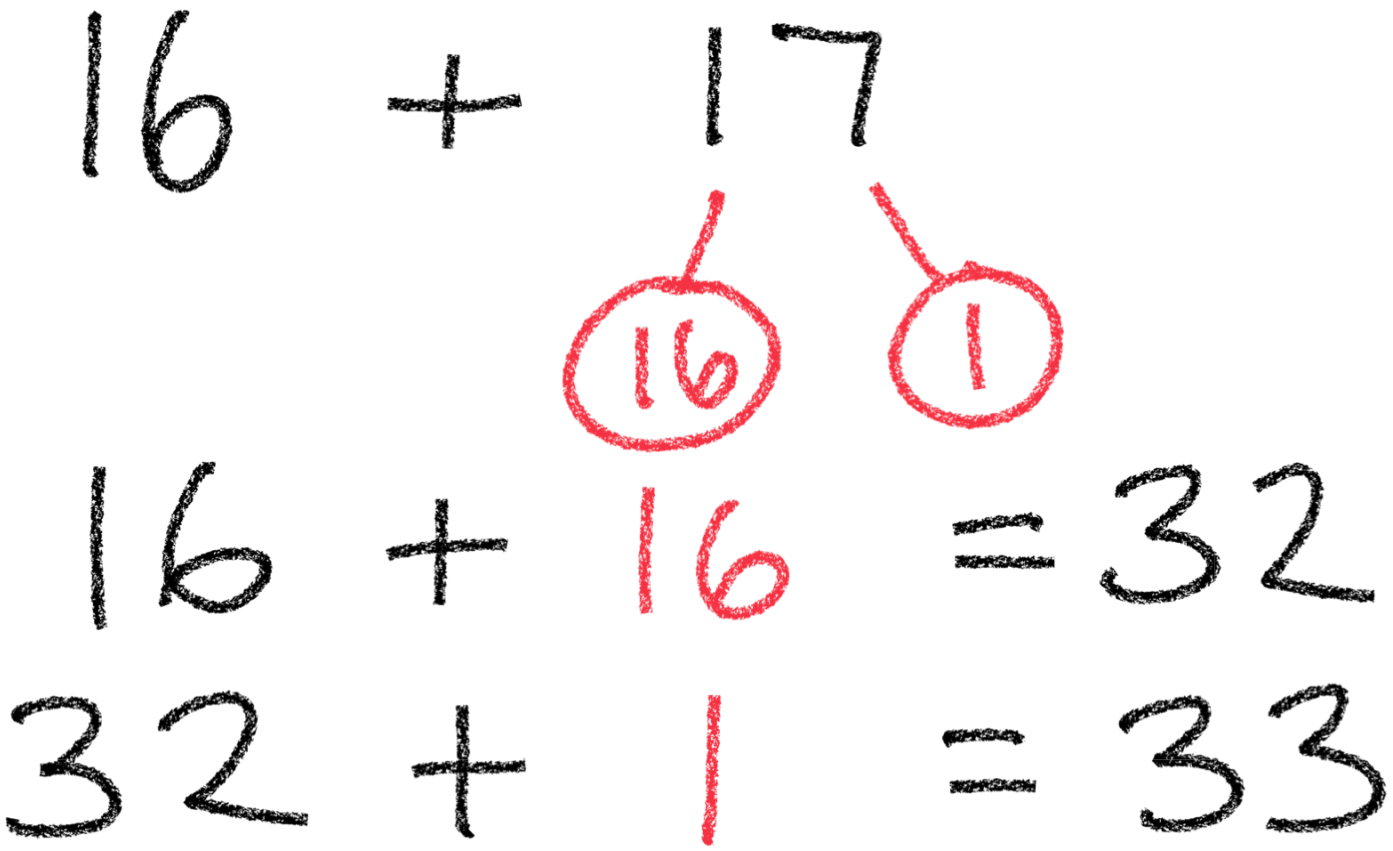
$$67 + 28$$

$$+2$$

$$67 + 30 = 97$$

$$97 - 2 = 95$$

Addition Strategy: Doubles/Near Doubles



Addition Strategy: Friendly Numbers

28 + 47

+2 −2

30 + 45 = 75

Subtraction Strategy: Counting Back

123 + 69

123 − (20 + 40 + 3 + 6)

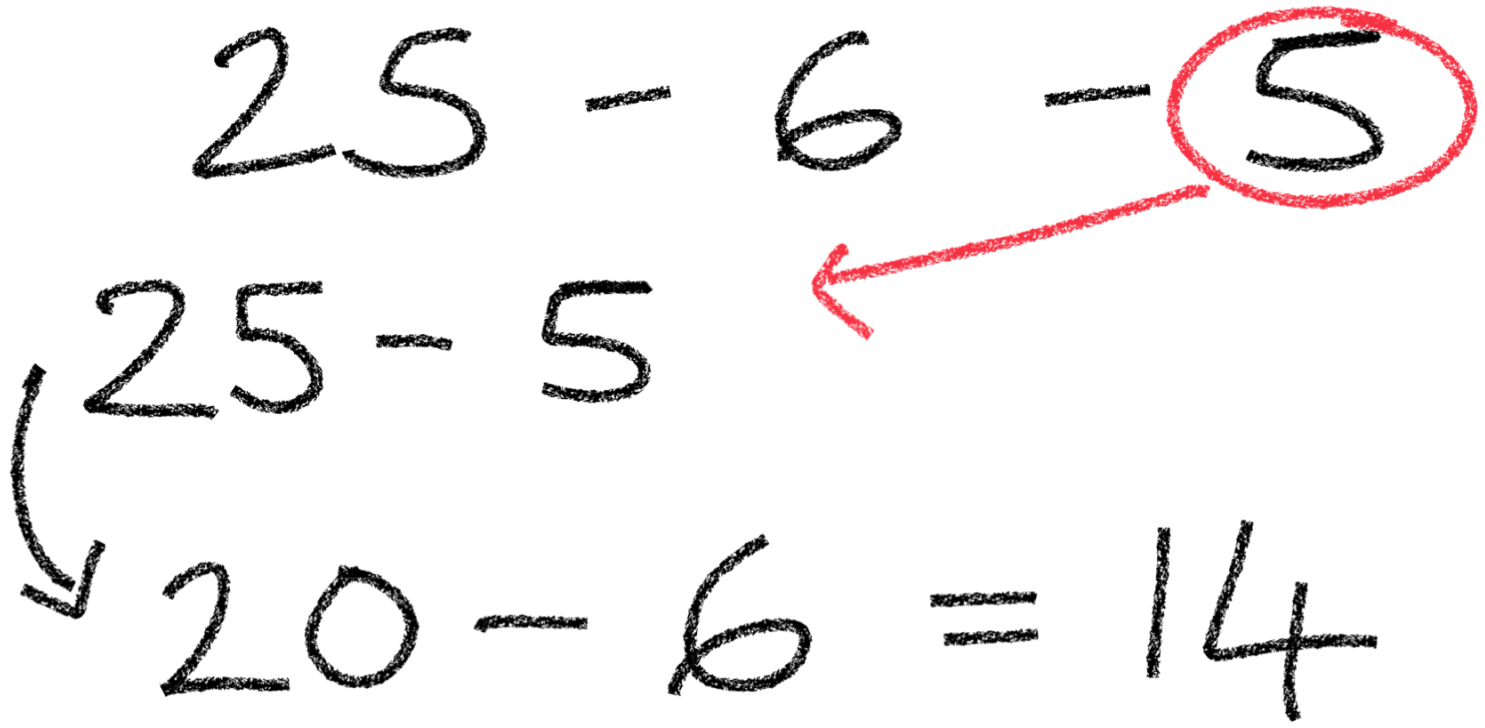
123 − 20 = 103

103 − 40 = 63

63 − 3 = 60

60 − 6 = 54

Subtraction Strategy: Reordering



Subtraction Strategy: Partitioning

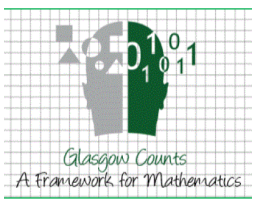
$$367 - 154$$

$$367 - 100 = 267$$

$$267 - 50 = 217$$

$$217 - 4 = 213$$

$$367 - 100 - 50 - 4 = 213$$



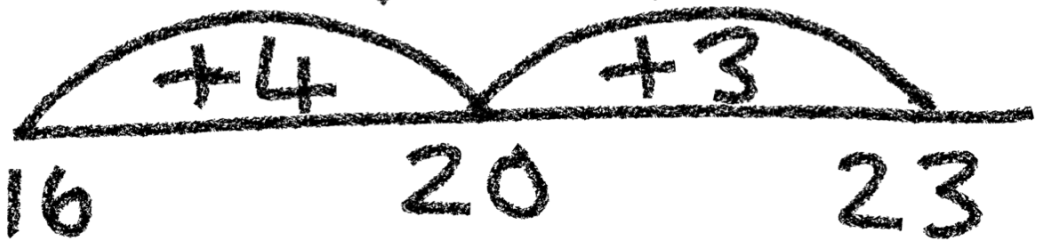
Subtraction Strategy: Bridging through 10

23 − 16

16 + 4 = 20

20 + 3 = 23

Final answer is 7



Glasgow Counts
A Framework for Mathematics

Subtraction Strategy:
Place Value & Negative Numbers

$$399 - 254$$

$$(300 + 90 + 9) - (200 + 50 + 4)$$

$$\begin{array}{r} 300 + 90 + 9 \\ -\ 200 + 50 + 4 \\ \hline 100 + 40 + 5 \end{array}$$

$$= 145$$

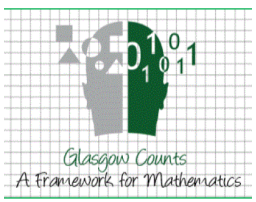
Subtraction Strategy:
Adjusting for easier numbers

$$123 - 59$$

$$+1$$

$$123 - 60 = 63$$

$$63 + 1 = 64$$



Subtraction Strategy:
Keep a constant difference

$$151 - 98$$

$$(151 + 2) - (98 + 2)$$

$$153 - 100 = 53$$

$$151 - 98 = 53$$

Multiplication & Division Strategy: Friendly Numbers

$$9 \times 15$$

$$10 \times 15 = 150$$

$$150 - 15 = 135$$

Don't forget to 'undo' your change!

Multiplication & Division Strategy: Repeated Addition

$$6 \times 15$$

$$15 + 15 + 15 + 15 + 15 + 15$$

$$15 + 15 = 30$$

$$30 + 15 = 45$$

$$45 + 15 = 60$$

$$60 + 15 = 75$$

$$75 + 15 = 90$$

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Multiplication & Division Strategy: Partial Products

$$6 \times 125$$

$$6 \times (100 + 20 + 5)$$

$$(6 \times 100) + (6 \times 20) + (6 \times 5)$$

$$600 + 120 + 30 = 750$$

Multiplication & Division Strategy: Doubling & Halving

24×8

$\times 2 \qquad \div 2$

48×4

$\times 2 \qquad \div 2$

96×2

$\times 2 \qquad \div 2$

$= 192$

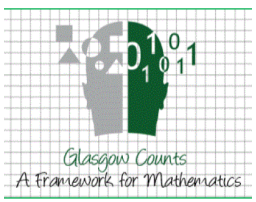
Multiplication & Division Strategy:
Breaking factors into smaller factors

$$12 \times 25$$

2×6

$$2 \times 25 = 50$$

$$50 \times 6 = 300$$



Multiplication & Division Strategy:
Grid Method

35 x 7

x	30	5
7	210	35

210 + 35 = 245

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Multiplication & Division Strategy: Partial Quotients

36 r 10

15 ⟌ 550

- 150 (10 x 15)

400

- 300 (20 x 15)

100

- 30 (2 x 15)

70

- 60 (4 x 15)

10

Multiplication & Division Strategy:
Multiplying Up

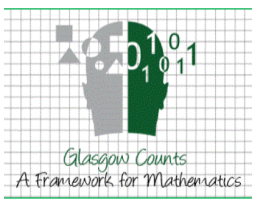
72 ÷ 8 8x

5 = 40

8 x 4 = 32

(5 + 4) = (40 + 32)

8 x 9 = 72



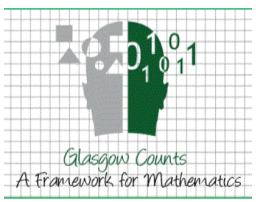
Multiplication & Division Strategy: Repeated Subtraction

$$24 \div 6$$

$$24 - 6 - 6 - 6 - 6$$

$$6 \times 4 = 24 \quad \underline{\text{so}}$$

$$24 \div 6 = 4$$



Multiplication & Division Strategy:

Proportional Reasoning - making each number either side of the division sign in the problem smaller by dividing it by the same number

$$384 \div 16$$

$$= (384 \div 2) \div (16 \div 2)$$

$$= (192 \div 2) \div (8 \div 2)$$

$$= 48 \div 2 = 24$$

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