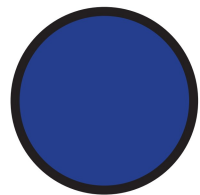


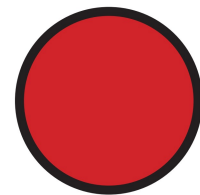
Sense of Number

Expanded Visual Calculation Policy

Mental Strategies Policy



Holy Trinity CofE Primary School
February 2020



Graphic Design by Dave Godfrey
Compiled by the Sense of Number Maths Team

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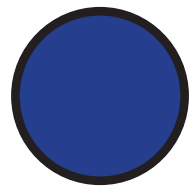
'A picture is worth 1000 words!' www.senseofnumber.co.uk



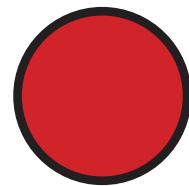
Holy Trinity CofE Primary School

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Guide to using a



Visual Calculation Policy

The Full Sense of Number Visual Calculation Policy Package provides a comprehensive visual representation of a school's Calculation Policy.

- 1: CPVCP** **Concrete and Pictorial VCP** - The foundation of the policy, featuring key models and images to help children gain deep understanding of the abstract procedures.
- 2: WSVCP** **Written Strategies progression from jottings to formal written methods from Y1 to Y6.**
- 3: MSVCP** **Mental Strategies progression across KS1 and KS2 for all four operations.**
- 4: ECPD** **Editable Calculation Policy Document** - a comprehensive written explanation of a school's calculation policy, featuring thumbnails of the posters from the three documents above.

Typical uses:

- Classroom:** The posters are printed out (e.g. A4) and the appropriate slides are displayed for continual reference or on a working wall. Posters are used on the interactive whiteboard.
- Reference:** The summary overviews are printed out and inserted in the teacher's planning folder.
- Parents:** The posters are used to communicate to parents the methods being used within school.
- Website:** Screen grabs of slides from the VCP are inserted on a schools' maths webpages.
(PLEASE NOTE: the VCP should not be placed on school website for copyright reasons.)
A secure PDF copy of the Editable Calculation Policy may be placed on the school website.



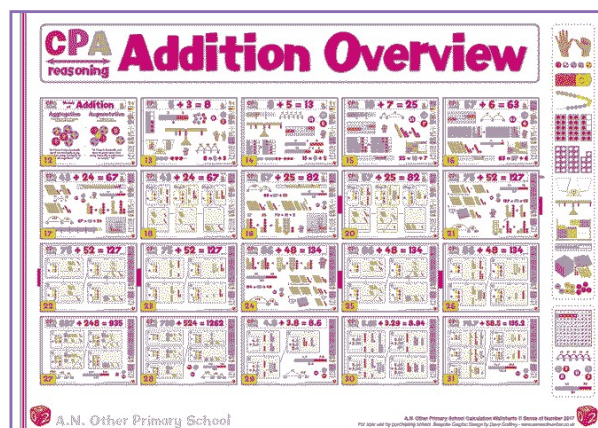
Expanded Visual Calculation Policy

The Expanded Visual Calculation Policy helps children and teaching staff achieve mastery of all aspects of calculation. It contains the following three documents:

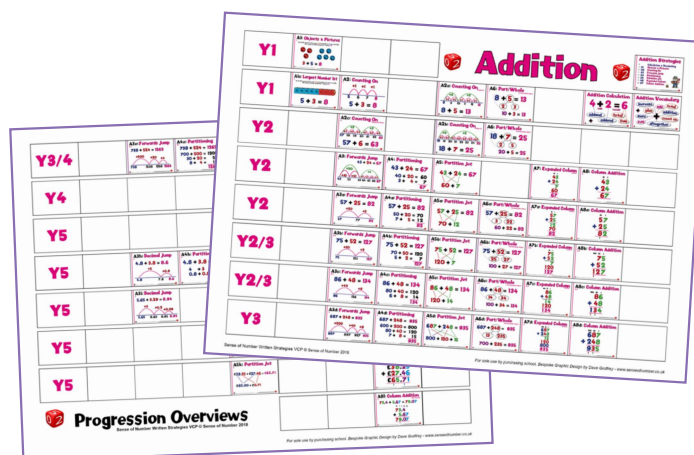
**Concrete
& Pictorial VCP**

**Written
Strategies VCP**

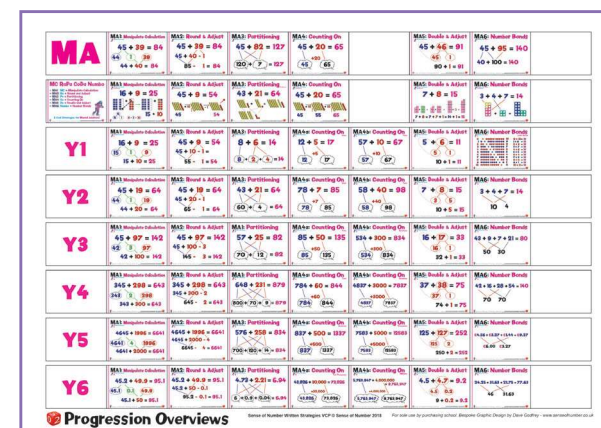
**Mental
Strategies VCP**



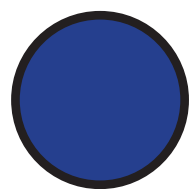
84 A3 wallcharts showing the range of models and images that help children to understand and master calculation strategies.



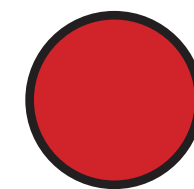
271 A4 posters showing the progression of written strategies (from Y1 to Y6) for all 4 operations in line with the National Curriculum.



214 A4 posters showing the progression of mental strategies (from Y1 to Y6) for all 4 operations in line with the National Curriculum.



Poster Guide



Expanded Visual Calc. Policy

Code	Section	Concrete & Pictorial (84 A3 Wallcharts)		Written VCP (271 A4 Posters)		Mental VCP (215 A4 Posters)	
		Number of Wallcharts	Wallchart Numbers	No. of Posters	Poster Numbers	No. of Posters	Poster Numbers
	Policy Introduction Slides	4	1-4	4	1-4	4	1-4
	Introductory Posters	3	5-7	9	5-13		
	Operation Overviews	4	8-11	13	14-26	8	5-12
C	Counting Policy			15	27-41		
A	Addition	20	12-31	54	42-103		
MA	Mental Addition					55	13-67
S	Subtraction	27	32-58	48	104-169		
MS	Mental Subtraction					63	68-130
M	Multiplication	11	59-69	39	170-209		
MM	Mental Multiplication					46	131-176
D	Division	15	70-84	55	210-264		
MD	Mental Division					38	177-215
	Multiplication Tables			11	265-275		
	Alternative layouts (Column & Number Lines)			29	276-306		



MC RaPa CoDa Numbo

14 **MA1** **MC** = **Manipulate Calculation**

22 **MA2** **Ra** = **Round and Adjust**

30 **MA3** **Pa** = **Partitioning**

38 **MA4** **Co** = **Counting On**

52 **MA5** **Da** = **Double and Adjust**

60 **MA6** **Numbo** = **Number Bonds**



6 Cool Strategies for Mental Addition!



MA	MA1: Manipulate Calculation $45 + 39 = 84$ $44 + 40 = 84$	MA2: Round & Adjust $45 + 39 = 84$ $45 + 40 - 1 = 84$ $85 - 1 = 84$	MA3: Partitioning $45 + 82 = 127$ $120 + 7 = 127$	MA4: Counting On $45 + 20 = 65$ 		MA5: Double & Adjust $45 + 46 = 91$ $90 + 1 = 91$	MA6: Number Bonds $45 + 95 = 140$ $40 + 100 = 140$	
MC RaPa GoDa Numbos MA1 MC = Manipulate Calculation MA2 Ra = Round and Adjust MA3 Pa = Partitioning MA4 Go = Counting On MA5 Da = Double and Adjust MA6 Numbos = Number Bonds 5 Cool Strategies for Mental Addition!	MA1: Manipulate Calculation $16 + 9 = 25$ $15 + 10 = 25$	MA2: Round & Adjust $45 + 9 = 54$ 	MA3: Partitioning $43 + 21 = 64$ 	MA4: Counting On $45 + 20 = 65$ 		MA5: Double & Adjust $7 + 8 = 15$ $7 + 8 = 7 + 7 + 1 = 14 + 1 = 15$	MA6: Number Bonds $3 + 4 + 7 = 14$ 	
Y1	MA1: Manipulate Calculation $16 + 9 = 25$ $15 + 10 = 25$	MA2: Round & Adjust $45 + 9 = 54$ $45 + 10 - 1 = 54$ $55 - 1 = 54$	MA3: Partitioning $8 + 6 = 14$ $8 + 2 + 4 = 14$	MA4a: Counting On $12 + 5 = 17$ 	MA4b: Counting On $57 + 10 = 67$ 	MA5: Double & Adjust $5 + 6 = 11$ $5 + 6 = 5 + 5 + 1 = 10 + 1 = 11$	MA6: Number Bonds 	
Y2	MA1: Manipulate Calculation $45 + 19 = 64$ $44 + 20 = 64$	MA2: Round & Adjust $45 + 19 = 64$ $45 + 20 - 1 = 64$ $65 - 1 = 64$	MA3: Partitioning $43 + 21 = 64$ $60 + 4 = 64$	MA4a: Counting On $78 + 7 = 85$ 	MA4b: Counting On $58 + 40 = 98$ 	MA5: Double & Adjust $7 + 8 = 15$ $7 + 8 = 7 + 7 + 1 = 14 + 1 = 15$	MA6: Number Bonds $3 + 4 + 7 = 14$ 	
Y3	MA1: Manipulate Calculation $45 + 97 = 142$ $42 + 100 = 142$	MA2: Round & Adjust $45 + 97 = 142$ $45 + 100 - 3 = 142$ $145 - 3 = 142$	MA1: Partitioning $57 + 25 = 82$ $70 + 12 = 82$	MA4a: Counting On $85 + 50 = 135$ 	MA4b: Counting On $534 + 300 = 834$ 	MA5: Double & Adjust $16 + 17 = 33$ $16 + 17 = 16 + 16 + 1 = 32 + 1 = 33$	MA6: Number Bonds $43 + 9 + 7 + 21 = 80$ 	
Y4	MA1: Manipulate Calculation $345 + 298 = 643$ $343 + 300 = 643$	MA2: Round & Adjust $345 + 298 = 643$ $345 + 300 - 2 = 643$ $645 - 2 = 643$	MA1: Partitioning $648 + 231 = 879$ $800 + 70 + 9 = 879$	MA4a: Counting On $784 + 60 = 844$ 	MA4b: Counting On $4837 + 3000 = 7837$ 	MA5: Double & Adjust $37 + 38 = 75$ $37 + 38 = 37 + 37 + 1 = 74 + 1 = 75$	MA6: Number Bonds $42 + 16 + 28 + 54 = 140$ 	
Y5	MA1: Manipulate Calculation $4645 + 1996 = 6641$ $4641 + 2000 = 6641$	MA2: Round & Adjust $4645 + 1996 = 6641$ $4645 + 2000 - 4 = 6641$ $6645 - 4 = 6641$	MA3: Partitioning $576 + 258 = 834$ $700 + 120 + 14 = 834$	MA4a: Counting On $837 + 500 = 1337$ 	MA4b: Counting On $7583 + 5000 = 12583$ 	MA5: Double & Adjust $125 + 127 = 252$ $125 + 127 = 125 + 125 + 2 = 250 + 2 = 252$	MA6: Number Bonds $£4.56 + £3.27 + £1.44 = £9.27$ 	
Y6	MA1: Manipulate Calculation $45.2 + 49.9 = 95.1$ $45.1 + 50 = 95.1$	MA2: Round & Adjust $45.2 + 49.9 = 95.1$ $45.2 + 50 - 0.1 = 95.1$ $95.2 - 0.1 = 95.1$	MA3: Partitioning $4.73 + 2.21 = 6.94$ $6 + 0.9 + 0.04 = 6.94$	MA4a: Counting On $43,826 + 30,000 = 73,826$ 	MA4b: Counting On $5,763,947 + 4,000,000 = 9,763,947$ 	MA5: Double & Adjust $4.5 + 4.7 = 9.2$ $4.5 + 4.7 = 4.5 + 4.5 + 0.2 = 9 + 0.2 = 9.2$	MA6: Number Bonds $24.25 + 31.63 + 21.75 = 77.63$ 	

MC RaPa CoOCoB NumFa

69 **MS1** **MC** = Manipulate Calculation

77 **MS2** **Ra** = Round and Adjust

85 **MS3** **Pa** = Partitioning

91 **MS4** **CoO** = Counting On

108 **MS5** **CoB** = Counting Back

123 **MS6** **NumFa** = Number Facts



6 Cool Strategies for Mental Subtraction!



MS	MS1: Manipulate Calculation $84 - 29 = 55$ $85 - 30 = 55$	MA2: Round & Adjust $84 - 29 = 55$ $84 - 30 + 1 = 55$	MS3: Partitioning $63 - 35 = 28$	MS4a: Counting On $61 - 58 = 3$	MS4b: Counting On $40 - 28 = 12$	MS5a: Counting Back $68 - 20 = 48$	MS5b: Counting Back $86 - 12 = 74$	MS6: Number Facts $61 - 41 = 20$ $41 + 20 = 61$
MC RaPa CoOCob NumFa - MS1 MC = Manipulate Calculation - MS2 Ra = Round and Adjust - MS3 Pa = Partitioning - MS4a CoO = Counting On - MS5 CoB = Counting Back - MS6 NumFa = Number Facts 6 Cool Strategies for Mental Subtraction!	MS1: Manipulate Calculation $24 - 9 = 15$ $24 - 9 = 25 - 10$	MA2: Round & Adjust $24 - 9 = 15$ $24 - 10 + 1 = 15$	MS3: Partitioning $63 - 35 = 28$	MS4a: Counting On $12 - 9 = 3$	MS4b: Counting On $40 - 28 = 12$	MS5a: Counting Back $68 - 20 = 48$	MS5b: Counting Back $86 - 12 = 74$	MS6: Number Facts $61 - 41 = 20$ $41 + 20 = 61$
Y1	MS1: Manipulate Calculation $24 - 9 = 15$ $25 - 10 = 15$	MA2: Round & Adjust $24 - 9 = 15$ $24 - 10 + 1 = 15$	MS3: Partitioning $23 - 8 = 15$	MS4a: Counting On $12 - 9 = 3$		MS5a: Counting Back $15 - 4 = 11$		MS6: Number Facts $19 - 9 = 10$ $9 + 10 = 19$
Y2	MS1: Manipulate Calculation $84 - 29 = 55$ $85 - 30 = 55$	MA2: Round & Adjust $84 - 29 = 55$ $84 - 30 + 1 = 55$	MS3: Partitioning $63 - 35 = 28$	MS4a: Counting On $61 - 58 = 3$	MS4b: Counting On $40 - 28 = 12$	MS5a: Counting Back $68 - 20 = 48$	MS5b: Counting Back $86 - 12 = 74$	MS6: Number Facts $61 - 41 = 20$ $41 + 20 = 61$
Y3	MS1: Manipulate Calculation $463 - 97 = 366$ $466 - 100 = 366$	MA2: Round & Adjust $463 - 97 = 366$ $463 - 100 + 3 = 366$	MS3: Partitioning $123 - 28 = 95$	MS4a: Counting On $302 - 297 = 5$	MS4b: Counting On $61 - 37 = 24$	MS5a: Counting Back $378 - 50 = 328$	MS5b: Counting Back $89 - 34 = 55$	MS6: Number Facts $123 - 83 = 40$ $83 + 40 = 123$
Y4	MS1: Manipulate Calculation $876 - 298 = 578$ $878 - 300 = 578$	MA2: Round & Adjust $876 - 298 = 578$ $876 - 300 + 2 = 578$	MS3: Partitioning $132 - 58 = 74$	MS4a: Counting On $1003 - 998 = 5$	MS4b: Counting On $324 - 280 = 44$	MS5a: Counting Back $768 - 200 = 568$	MS5b: Counting Back $578 - 45 = 533$	MS6: Number Facts $847 - 447 = 400$ $447 + 400 = 847$
Y5	MS1: Manipulate Calculation $5864 - 2996 = 2868$ $5868 - 3000 = 2868$	MA2: Round & Adjust $5864 - 2996 = 2868$ $5864 - 3000 + 4 = 2868$	MS3: Partitioning $750 - 372 = 378$	MS4a: Counting On $8.3 - 7.9 = 0.4$	MS4b: Counting On $1204 - 950 = 254$	MS5a: Counting Back $7291 - 2000 = 5291$	MS5b: Counting Back $8.6 - 4.1 = 4.5$	MS6: Number Facts $1424 - 724 = 700$ $724 + 700 = 1424$
Y6	MS1: Manipulate Calculation $46357 - 11999 = 34358$ $46358 - 12000 = 34358$	MA2: Round & Adjust $46357 - 11999 = 34358$ $46357 - 12000 + 1 = 34358$	MS3: Partitioning $£64.30 - £24.50 = £39.80$	MS4a: Counting On $£12.02 - £11.98 = 4p$	MS4b: Counting On $12.4 - 9.8 = 2.6$	MS5a: Counting Back $86374 - 20000 = 66374$	MS5b: Counting Back $£65.87 - £30.24 = £35.63$	MS6: Number Facts $13.2 - 9.2 = 4$ $9.2 + 4 = 13.2$

Mental Multiplication

132	MM1	Manipulate Calculation
139	MM2	Factorising
146	MM3	Re-ordering
149	MM4	Partitioning
154	MM5	Round & Adjust
158	MM6	Doubling
166	MM7	Doubling Table Facts
170	MM8	Doubling Up
173	MM9	Multiply by ... then Halve
175	MM10	Jump



10 Cool Strategies for Mental Multiplication



	MM1: Manipulate Calculation 16×3 $\begin{array}{c} +2 \\ \times 2 \end{array}$ $8 \times 6 = 48$	MM2: Factorising $16 \times 3 = 48$ $(8 \times 2 \times 3)$ $8 \times 6 = 48$	MM3: Re-ordering $(9 \times 2) \times 5$ $18 \times 5 = 90$ $(9 \times 5) \times 2$ $45 \times 2 = 90$ $(2 \times 5) \times 9$ $10 \times 9 = 90 *$	MM4: Partitioning $15 \times 5 = 75$ $50 + 25 = 75$ $(10 \times 5) \quad (5 \times 5)$	MM5: Round & Adjust $49 \times 3 = 147$ $(50 \times 3) - (1 \times 3)$ $150 - 3 = 147$	MM6: Doubling Double 17 = 34 $20 + 14 = 34$	MM7: Doubling Table Facts $8 \times 6 = 48$ (4×2) $4 \times 6 = 24$ $8 \times 6 = 48$ $\times 2$	MM8: Doubling Up $17 \times 4 = 68$ Double 17 = 34 (17×2) Double 34 = 68 (17×4)
Mental Multiplication - MM1 Manipulate Calculation - MM2 Factorising - MM3 Re-ordering - MM4 Partitioning - MM5 Round & Adjust - MM6 Doubling - MM7 Doubling Table Facts - MM8 Doubling Up - MM9 Multiply by ... then Halve - MM10 Jump 	MM1a: Manipulate Calculation 27×3 $\begin{array}{c} +3 \\ \times 3 \end{array}$ $9 \times 9 = 81$	MM2a: Factorising $27 \times 3 = 81$ $(9 \times 3 \times 3)$ $9 \times 9 = 81$	MM3a: Re-ordering $(7 \times 4) \times 5$ $28 \times 5 = 140$ $(7 \times 5) \times 4$ $35 \times 4 = 140$ $(4 \times 5) \times 7$ $20 \times 7 = 140 *$	MM4a: Partitioning $37 \times 4 = 148$ $120 + 28 = 148$ $(30 \times 4) \quad (7 \times 4)$	MM5a: Round & Adjust $198 \times 4 = 792$ $(200 \times 4) - (2 \times 4)$ $800 - 8 = 792$	MM6a: Doubling Double 37 = 74 $60 + 14 = 74$	MM7a: Doubling Table Facts $12 \times 7 = 84$ (6×2) $6 \times 7 = 42$ $12 \times 7 = 84$ $\times 2$	MM8a: Doubling Up $36 \times 8 = 288$ Double 36 = 72 (36×2) Double 72 = 144 (36×4) Double 144 = 288 (36×8)
	MM1b: Manipulate Calculation 45×14 $\begin{array}{c} \times 2 \\ \times 2 \end{array}$ $90 \times 7 = 630$	MM2b: Factorising $45 \times 14 = 630$ $(45 \times 2 \times 7)$ $90 \times 7 = 630$	MM3b: Re-ordering $(9 \times 8) \times 6$ $72 \times 6 = 432$ $(9 \times 6) \times 8$ $54 \times 8 = 432 *$ $(8 \times 6) \times 9$ $48 \times 9 = 432$	MM4b: Partitioning $126 \times 6 = 756$ $600 + 120 + 36 = 756$ $(100 \times 6) \quad (20 \times 6) \quad (6 \times 6)$	MM5b: Round & Adjust $3.9 \times 5 = 19.5$ $(4 \times 5) - (0.1 \times 5)$ $20 - 0.5 = 19.5$	MM6b: Doubling Double 78 = 156 $140 + 16 = 156$	MM7b: Doubling Table Facts $16 \times 7 = 112$ (8×2) $8 \times 7 = 56$ $16 \times 7 = 112$ $\times 2$	MM8b: Doubling Up $125 \times 16 = 2000$ Double 125 = 250 (125×2) Double 250 = 500 (125×4) Double 500 = 1000 (125×8) Double 1000 = 2000 (125×16)
	MM1c: Manipulate Calculation 36×25 $\begin{array}{c} +4 \\ \times 4 \end{array}$ $9 \times 100 = 900$	MM2c: Factorising $36 \times 25 = 900$ $(9 \times 4 \times 25)$ $9 \times 100 = 900$		MM4c: Partitioning $4.3 \times 8 = 34.4$ $32 + 2.4 = 34.4$ $(4 \times 8) \quad (0.3 \times 8)$	MM5c: Round & Adjust $£5.99 \times 6 = £35.94$ $(£6 \times 6) - (1p \times 6)$ $£36 - 6p = £35.94$	MM6c: Doubling Double 340 = 680 $600 + 80 = 680$	MM7c: Doubling Table Facts $22 \times 12 = 264$ (11×2) $11 \times 12 = 132$ $22 \times 12 = 264$ $\times 2$	
	MM1d: Manipulate Calculation 32×15 $\begin{array}{c} \times 5 \\ +5 \end{array}$ $160 \times 3 = 480$	MM2d: Factorising $32 \times 15 = 480$ $(32 \times 5 \times 3)$ $160 \times 3 = 480$		MM4d: Partitioning $2.16 \times 3 = 6.48$ $6 + 0.3 + 0.18 = 6.48$ $(2 \times 3) \quad (0.1 \times 3) \quad (0.06 \times 3)$		MM6d: Doubling Double 480 = 960 $800 + 160 = 960$		
	MM1e: Manipulate Calculation 26×32 $\begin{array}{c} \times 4 \\ +4 \end{array}$ $104 \times 8 = 832$	MM2e: Factorising $26 \times 32 = 832$ $(26 \times 4 \times 8)$ $104 \times 8 = 832$				MM6e: Doubling Double 278 = 556 $400 + 140 + 16 = 556$		
	MM1f: Manipulate Calculation 52×24 $\begin{array}{c} \times 4 \\ +4 \end{array}$ $208 \times 6 = 1248$	MM2f: Factorising $52 \times 24 = 1248$ $(52 \times 4 \times 6)$ $208 \times 6 = 1248$				MM6f: Doubling Double 768 = 1536 $1400 + 120 + 16 = 1536$	MM9: Mult by ... then Halve $86 \times 5 = 430$ $86 \times 10 = 860$ $860 \div 2 = 430$	MM10: Jump! $\times 100$ 3400 $\times 10$ 340 34



Progression Overviews

Sense of Number Written Strategies VCP © Sense of Number 2018



Holy Trinity CofE Primary School

MM6g: Doubling Double 3.7 = 7.4 $6 + 1.4 = 7.4$	MM9a: Mult by ... then Halve $56 \times 25 = 1400$ $56 \times 100 = 5600$ $5600 \div 2 = 2800$ $2800 \div 2 = 1400$	MM10a: Jump! $\times 1000$ 63400 $\times 100$ 6340 $\times 10$ 634 63.4
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Mental Division

178	MD1	Manipulate Calculation
185	MD2	Divide by 100 then Double
187	MD3	Halving
194	MD4	Halve and Halve Again
198	MD5	Division as a Fraction
205	MD6	Find the Hunk
211	MD7	Jump



7 Cool Strategies for Mental Division!



	MD1: Manipulate Calculation $140 \div 20$ $\begin{array}{c} +10 \\ +10 \end{array}$ $14 \div 2 = 7$	MD2: Divide by 100 then Double $800 \div 50 = 16$ $800 \div 100 = 8$ $8 \times 2 = 16$	MD3: Halving Half of 12 is equivalent to $12 \div 2$  $\frac{1}{2}$ of 12 = $12 \div 2$	MD4: Halve & Halve Again $84 \div 4 = 21$ Half of 84 = 42 ($84 \div 2$) Half of 42 = 21 ($42 \div 2$)	MD5: Division as a Fraction $\frac{1}{4}$ of 20 = $20 \div 4 = 5$ 	MD6: Find the Hunk! $72 \div 4 = 18$ $\begin{array}{c} 40 \\ + 32 \end{array} \div 4$ $\begin{array}{c} 10 \\ + 8 \end{array} = 18$	MD7: Jump (+10) 80 $+10$ 8	
Mental Division MD1 Manipulate Calculation MD2 Divide by 100 then Double MD3 Halving MD4 Halve and Halve Again MD5 Division as a Fraction MD6 Find the Hunk! MD7 Jump 7 Cool Strategies for Mental Division!	MD1a: Manipulate Calculation $84 \div 12$ $\begin{array}{c} \div 2 \\ \div 2 \end{array}$ $42 \div 6 = 7$ $21 \div 3 = 7$	MD2a: Divide by 100 then Double twice $800 \div 25 = 32$ $800 \div 100 = 8$ $8 \times 2 = 16$ $16 \times 2 = 32$	MD3a: Halving Half of 26 $\begin{array}{c} 10 \\ + 3 \end{array} = 13$	MD4a: Halve & Halve Again $128 \div 4 = 32$ Half of 128 = 64 ($128 \div 2$) Half of 64 = 32 ($64 \div 2$)	MD5a: Division as a Fraction $\frac{1}{8}$ of 24 = $24 \div 8 = 3$ 	MD6a: Find the Hunk! $65 \div 4 = 16r1$ $\begin{array}{c} 40 \\ + 25 \end{array} \div 4$ $\begin{array}{c} 10 \\ + 6r1 \end{array} = 16r1$	MD7a: Jump (+10) 360 $+10$ 36	
	MD1b: Manipulate Calculation $1200 \div 400$ $\begin{array}{c} +100 \\ +100 \end{array}$ $12 \div 4 = 3$		MD3b: Halving Half of 58 $\begin{array}{c} 25 \\ + 4 \end{array} = 29$	MD4b: Halve, Halve, Halve $360 \div 8 = 45$ Half of 360 = 180 ($360 \div 2$) Half of 180 = 90 ($180 \div 2$) Half of 90 = 45 ($90 \div 2$)	MD5b: Division as a Fraction $\frac{1}{4}$ of 3 = $3 \div 4 = \frac{3}{4}$ 	MD6b: Find the Hunk! $136 \div 4 = 34$ $\begin{array}{c} 120 \\ + 16 \end{array} \div 4$ $\begin{array}{c} 30 \\ + 4 \end{array} = 34$	MD7a: Jump (+10) 360 $+10$ 36	
	MD1c: Manipulate Calculation $162 \div 18$ $\begin{array}{c} \div 2 \\ \div 2 \end{array}$ $81 \div 9 = 9$		MD3c: Halving Half of 92 $\begin{array}{c} 40 \\ + 6 \end{array} = 46$ Half of 92 $\begin{array}{c} 45 \\ + 1 \end{array} = 46$	MD4c: Halve, Halve, Halve $5000 \div 8 = 625$ Half of 5000 = 2500 ($5000 \div 2$) Half of 2500 = 1250 ($2500 \div 2$) Half of 1250 = 625 ($1250 \div 2$)	MD5c: Division as a Fraction $\frac{1}{4}$ of 9 = $9 \div 4 = 2\frac{1}{4}$ 	MD6c: Find the Hunk! $394 \div 6 = 65r4$ $\begin{array}{c} 360 \\ + 34 \end{array} \div 6$ $\begin{array}{c} 60 \\ + 5r4 \end{array} = 65r4$	MD7b: Jump (+10/100) 6300 $+10$ $+100$ 630 63	
	MD1d: Manipulate Calculation $18 \div 1.5$ $\begin{array}{c} \times 2 \\ \times 2 \end{array}$ $36 \div 3 = 12$		MD3d: Halving Half of 326 $\begin{array}{c} 160 \\ + 3 \end{array} = 163$ Half of 326 $\begin{array}{c} 150 \\ + 10 \\ + 3 \end{array} = 163$		MD5d: Division as a Fraction $\frac{1}{5}$ of 17 = $17 \div 5 = 3\frac{2}{5}$ 	MD6d: Find the Hunk! $536 \div 4 = 134$ $\begin{array}{c} 400 \\ + 120 \\ + 16 \end{array} \div 4$ $\begin{array}{c} 100 \\ + 30 \\ + 4 \end{array} = 134$	MD7c: Jump (+10/100/1000) 634 $+10$ $+100$ $+1000$ 63.4 6.34 0.634	
	MD1e: Manipulate Calculation $9.3 \div 0.3$ $\begin{array}{c} \times 10 \\ \times 10 \end{array}$ $93 \div 3 = 31$		MD3e: Halving Half of 5.84 $\begin{array}{c} 2.5 \\ + 0.4 \\ + 0.02 \end{array} = 2.92$		MD5e: Division as a Fraction $\frac{1}{8}$ of 19 = $19 \div 8 = 2\frac{3}{8}$ 	MD6e: Find the Hunk! $18 \div 1.5 = 12$ $\begin{array}{c} 15 \\ + 3 \end{array} \div 1.5$ $\begin{array}{c} 10 \\ + 2 \end{array} = 12$		
	MD1f: Manipulate Calculation $6.25 \div 0.25$ $\begin{array}{c} \times 4 \\ \times 4 \end{array}$ $25 \div 1 = 25$		MD3f: Halving Half of 34.72 = 17.36 $\begin{array}{c} 15 \\ + 2 \\ + 0.35 \\ + 0.01 \end{array}$ Half of 34.72 $\begin{array}{c} 10 \\ + 7 \\ + 0.3 \\ + 0.6 \end{array}$		MD5f: Division as a Fraction $\frac{1}{12}$ of 9 = $9 \div 12 = \frac{3}{4}$ 			



Progression Overviews

Sense of Number Written Strategies VCP © Sense of Number 2018



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MC RaPa CoDa Numbo

- 14 **MA1** **MC** = **Manipulate Calculation**
- 22 **MA2** **Ra** = **Round and Adjust**
- 30 **MA3** **Pa** = **Partitioning**
- 38 **MA4** **Co** = **Counting On**
- 52 **MA5** **Da** = **Double and Adjust**
- 60 **MA6** **Numbo** = **Number Bonds**



6 Cool Strategies for Mental Addition!

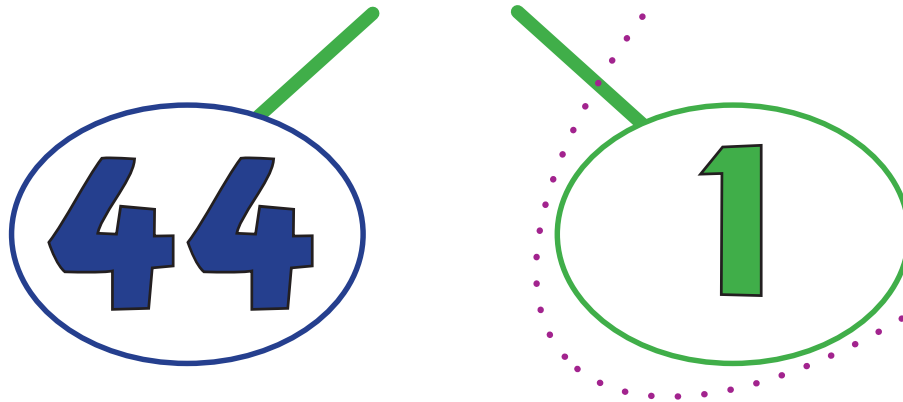


MA1: Manipulate Calculation



MC RaPa CoDa Numbo

$$45 + 39 = 84$$



$$44 + 40 = 84$$

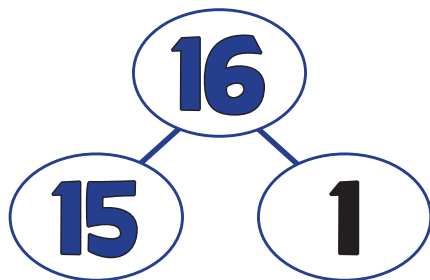
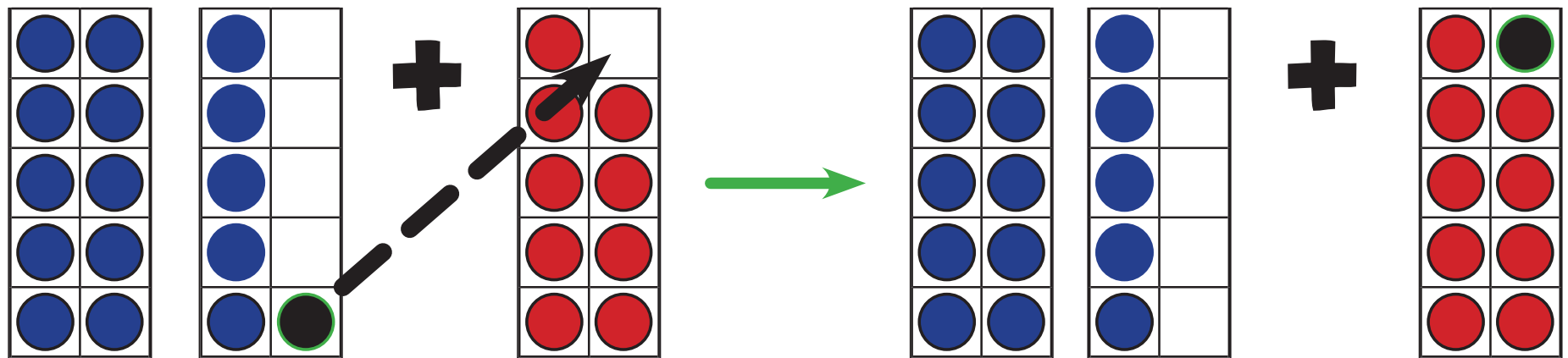


MA1: Manipulate Calculation



MC RaPa CoDa Numbo
Visualisation

$$16 + 9 = 25$$



$$9 + 1 = 10$$

$$15 + 10$$

MA1: Manipulate Calculation



MC RaPa CoDa Numbo

1

$$16 + 9 = 25$$

Diagram illustrating the calculation strategy for $16 + 9 = 25$. A dotted line connects the 6 in 16 to the 9 in 9, forming a loop. A green line connects the 1 in 16 to a green circle containing the number 1. Another green line connects the 5 in 15 to the 1 in the green circle. Below this, the calculation $15 + 10 = 25$ is shown, where the 10 is formed by adding the 1 from the first step to the 9.

$$15 + 10 = 25$$



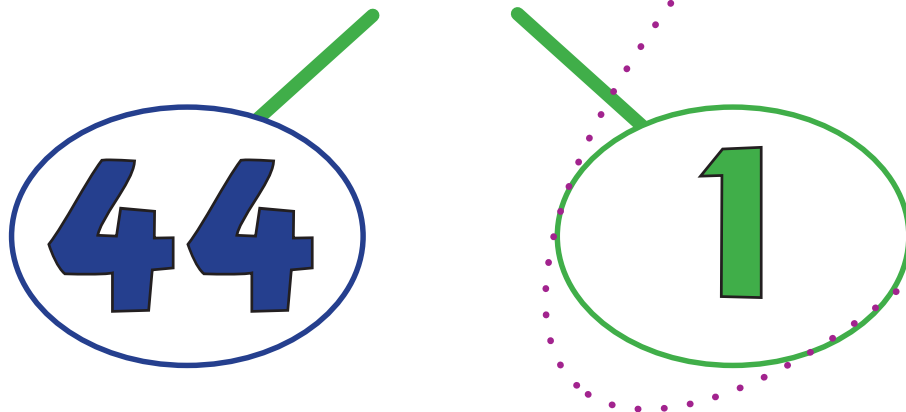
MA1: Manipulate Calculation



MC RaPa CoDa Numbo

2

$$45 + 19 = 64$$



$$44 + 20 = 64$$



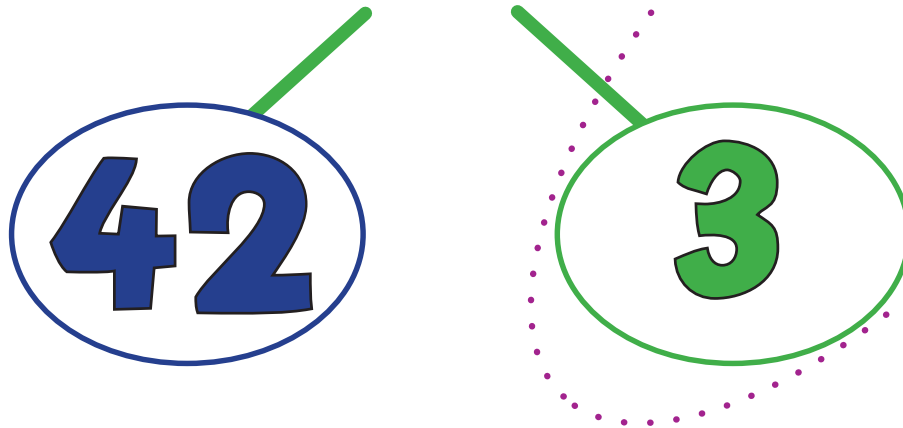
MA1: Manipulate Calculation



MC RaPa CoDa Numbo

3

$$45 + 97 = 142$$



$$42 + 100 = 142$$



MA1: Manipulate Calculation



MC RaPa CoDa Numbo

4

$$345 + 298 = 643$$

$$343$$

$$2$$

$$343 + 300 = 643$$



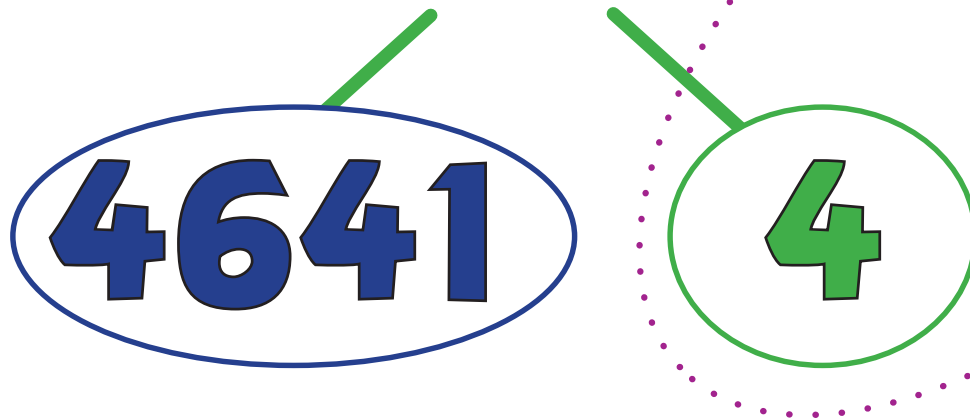
MA1: Manipulate Calculation



MC RaPa CoDa Numbo

5

$$4645 + 1996 = 6641$$



$$4641 + 2000 = 6641$$



MA1: Manipulate Calculation



MC RaPa CoDa Numbo

6

$$45.2 + 49.9 = 95.1$$

45.1

0.1

$$45.1 + 50 = 95.1$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

$$45 + 39 = 84$$

$$45 + 40 - 1$$

$$85 - 1 = 84$$

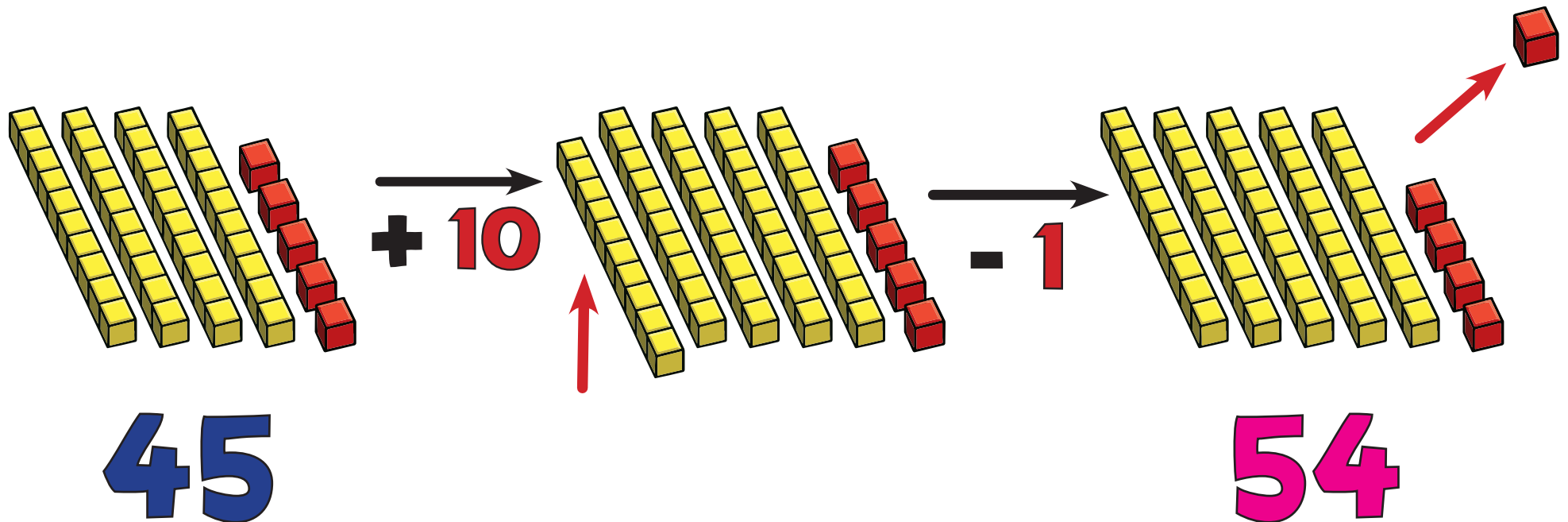


MA2: Round & Adjust



MC RaPa CoDa Numbo
Visualisation

$$45 + 9 = 54$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

1

$$45 + 9 = 54$$

$$45 + 10 - 1 =$$

$$55 - 1 = 54$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

2

$$45 + 19 = 64$$

$$45 + 20 - 1$$

$$65 - 1 = 64$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

3

$$45 + 97 = 142$$

$$45 + 100 - 3$$

$$145 - 3 = 142$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

4

$$345 + 298 = 643$$

$$345 + 300 - 2$$

$$645 - 2 = 643$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

5

$$4645 + 1996 = 6641$$

$$4645 + 2000 - 4$$

$$6645 - 4 = 6641$$



MA2: Round & Adjust



MC RaPa CoDa Numbo

6

$$45.2 + 49.9 = 95.1$$

$$45.2 + 50 - 0.1$$

$$95.2 - 0.1 = 95.1$$



MA3: Partitioning



MC RaPa CoDa Numbo

$$45 + 82 = 127$$

The diagram illustrates the partitioning of the numbers 45 and 82. Two blue lines connect the '4' in 45 to the '1' in 120 and the '2' in 7. Two red lines connect the '8' in 82 to the '2' in 120 and the '7' in 7. This shows that 45 is partitioned into 40 and 5, and 82 is partitioned into 80 and 2, which then combine to form 120 and 7.

$$120 + 7 = 127$$



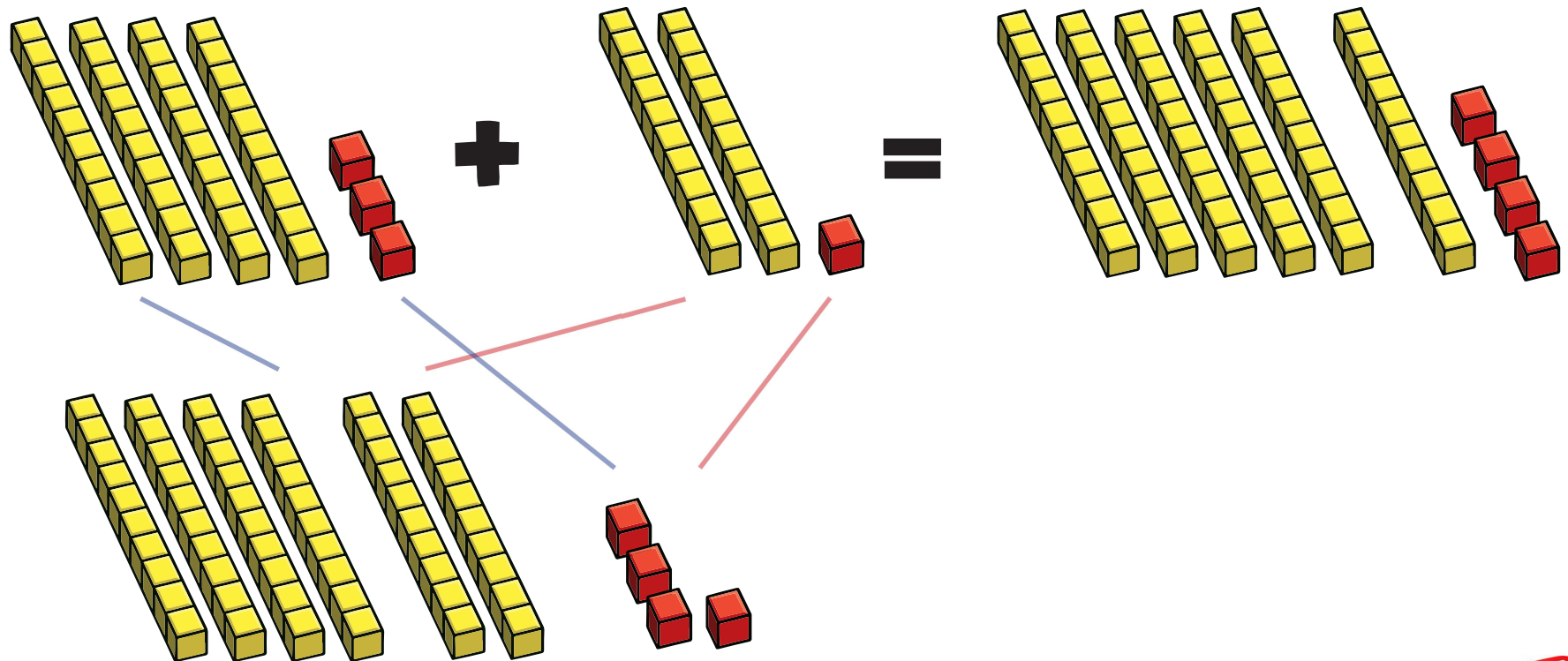
MA3: Partitioning



MC RaPa CoDa Numbo
Visualisation

Visualisation

$$43 + 21 = 64$$



MA3: Partitioning



MC RaPa CoDa Numbo

1

$$8 + 6 = 14$$

$$\begin{array}{c} 8 \\ | \\ \text{8} \end{array} + \begin{array}{c} 6 \\ \swarrow \quad \searrow \\ \text{2} \quad \text{4} \end{array} = 14$$



MA3: Partitioning



MC RaPa CoDa Numbo

2

$$43 + 21 = 64$$

$$60 + 4 = 64$$



MA3: Partitioning



MC RaPa CoDa Numbo

3

$$57 + 25 = 82$$

$$70 + 12 = 82$$



MA3: Partitioning



MC RaPa CoDa Numbo

4

$$648 + 231 = 879$$

$$800 + 70 + 9 = 879$$



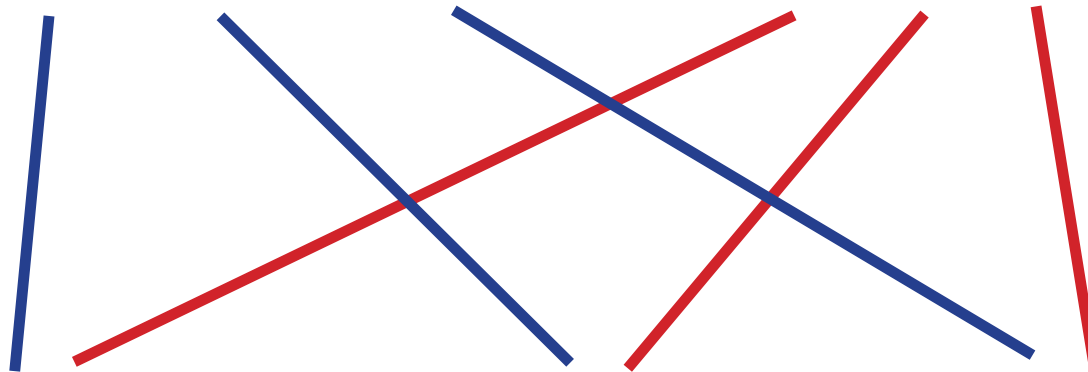
MA3: Partitioning



MC RaPa CoDa Numbo

5

$$576 + 258 = 834$$



$$700 + 120 + 14 = 834$$



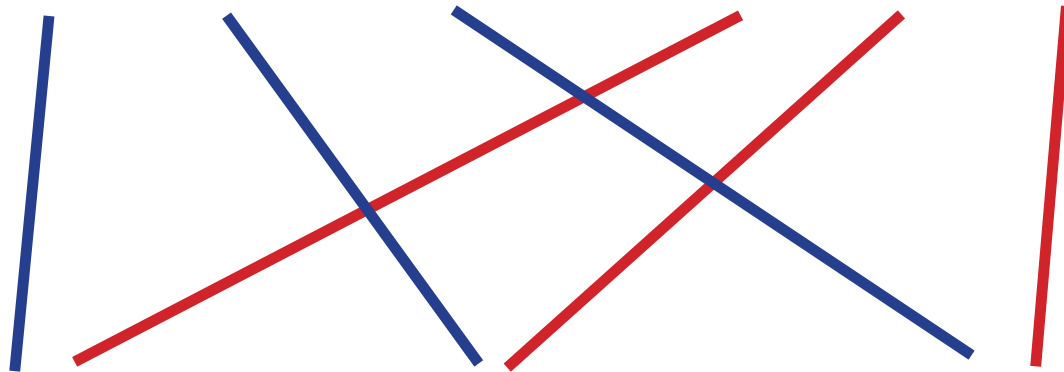
MA3: Partitioning



MC RaPa CoDa Numbo

6

$$4.73 + 2.21 = 6.94$$



$$6 + 0.9 + 0.04 = 6.94$$

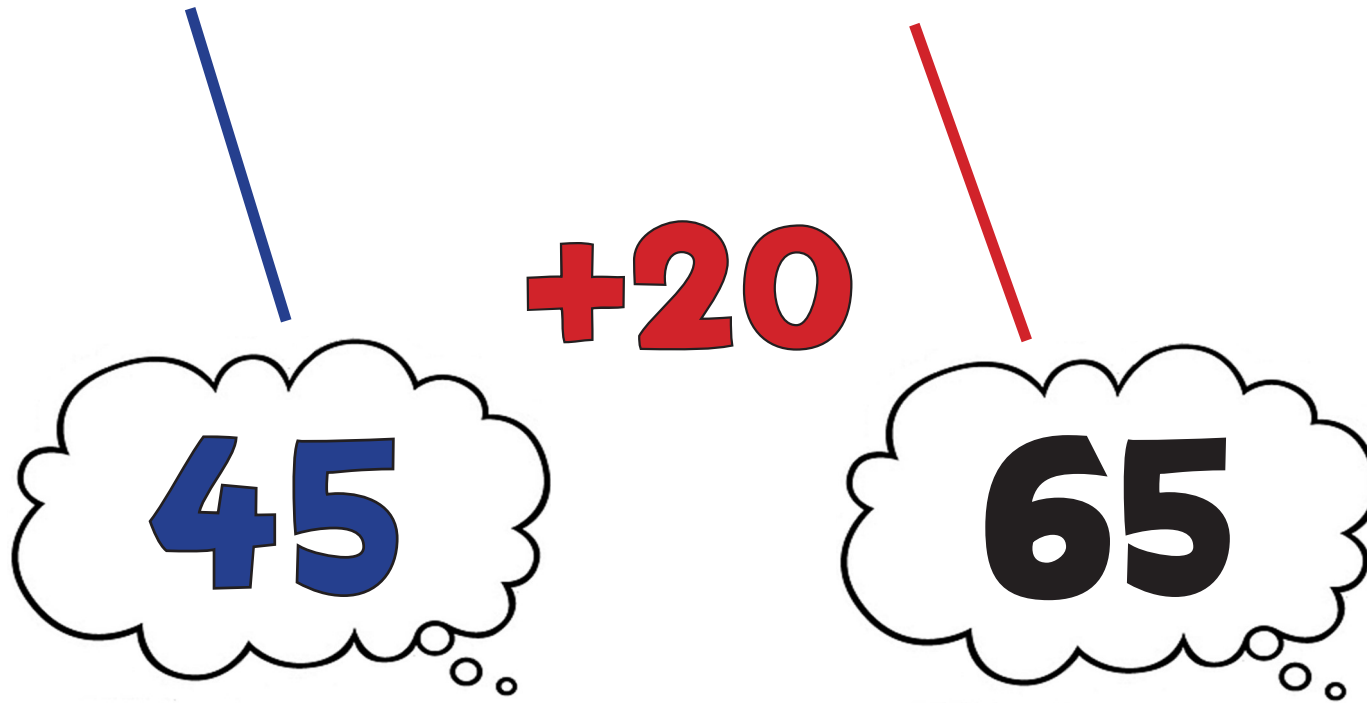


MA4: Counting On



MC RaPa CoDa Numbo

$$45 + 20 = 65$$

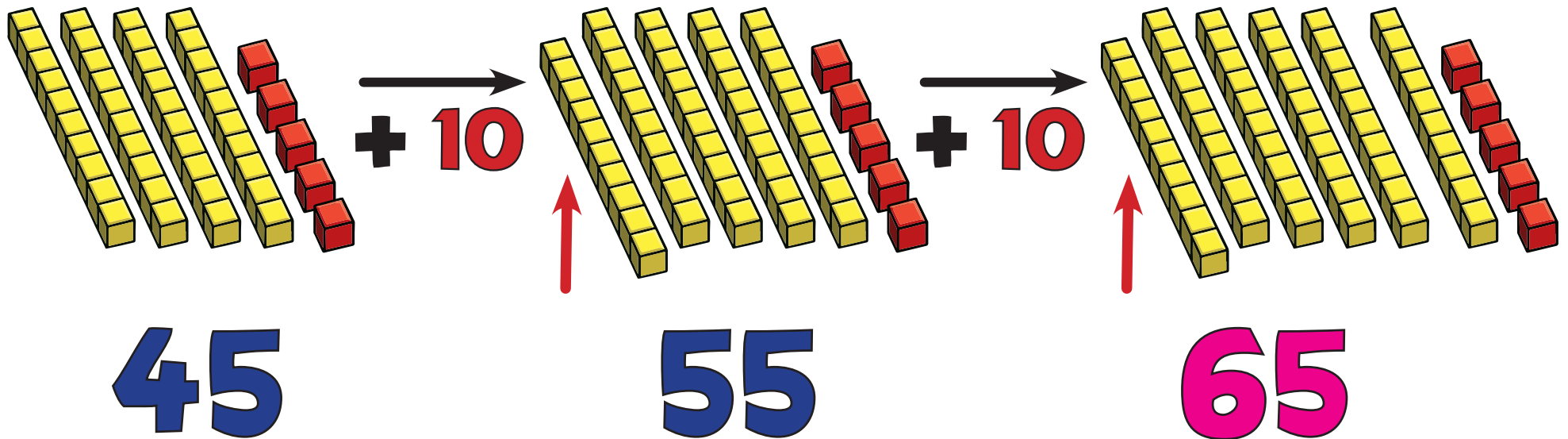


MA4: Counting On



MC RaPa CoDa Numbo
Visualisation

$$45 + 20 = 65$$



MA4a: Counting On



MC RaPa CoDa Numbo

1

Ones

$$12 + 5 = 17$$



+5



MA4b: Counting On



MC RaPa CoDa Numbo

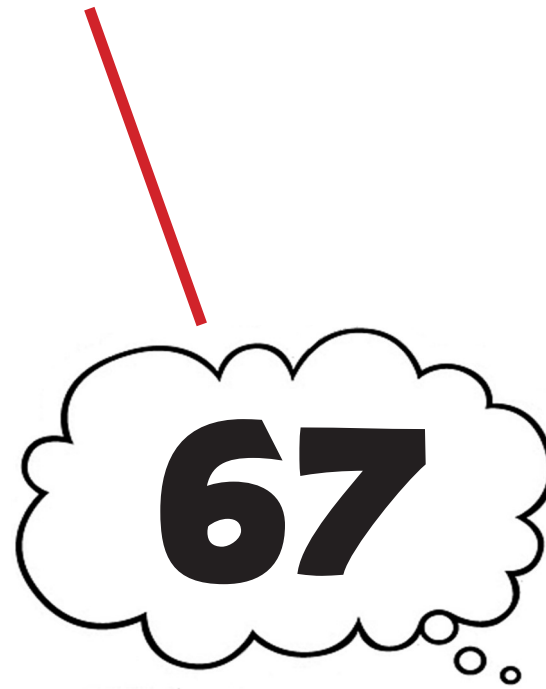
1

Tens

$$57 + 10 = 67$$



+10



MA4a: Counting On

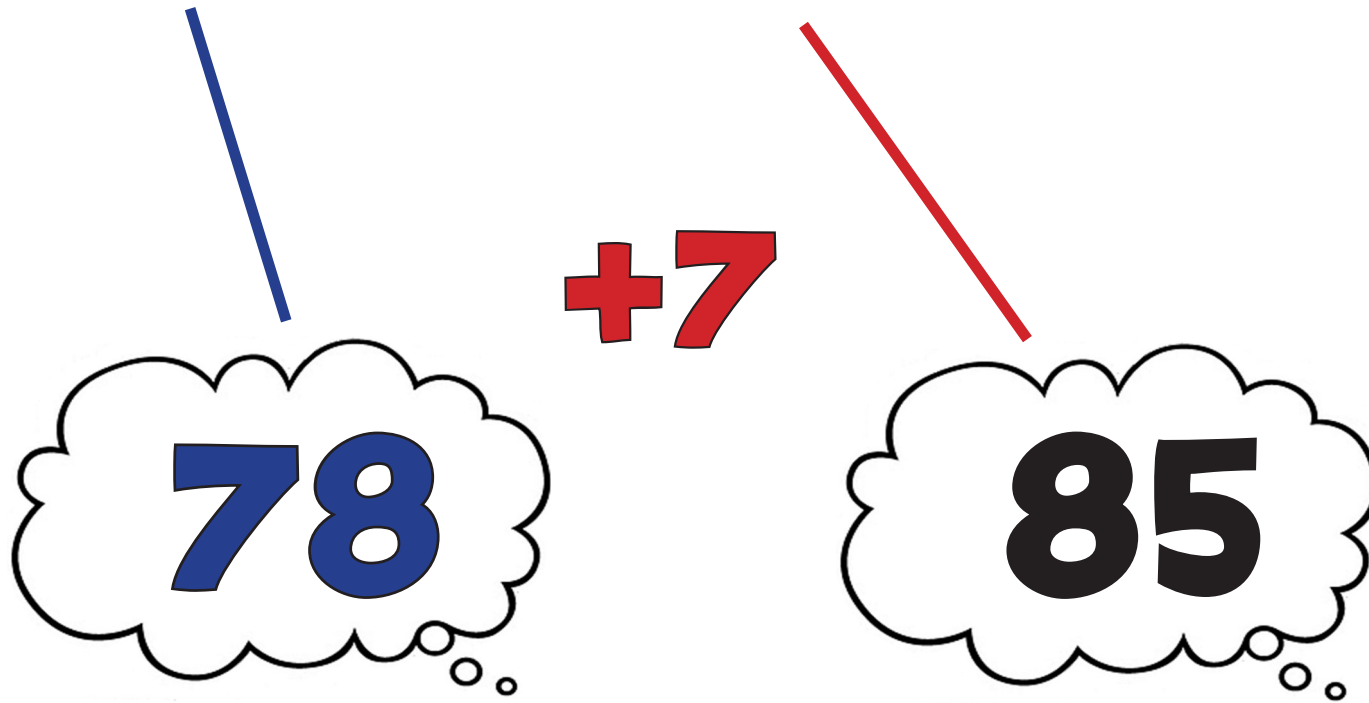


MC RaPa CoDa Numbo

2

Ones

$$78 + 7 = 85$$



MA4b: Counting On

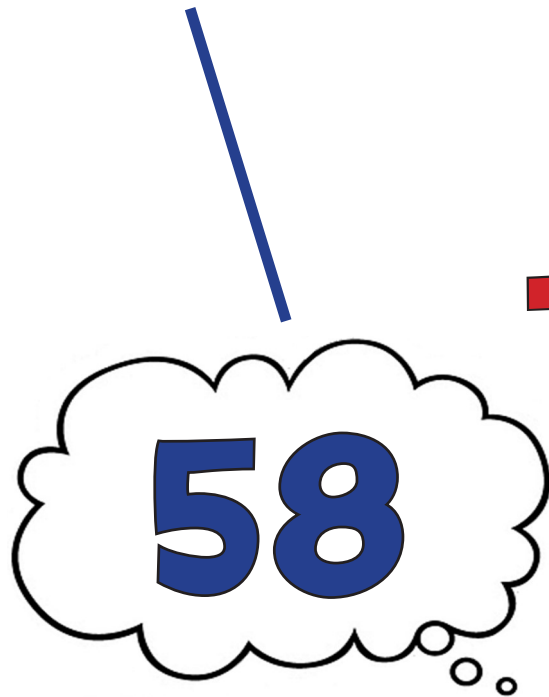


MC RaPa CoDa Numbo

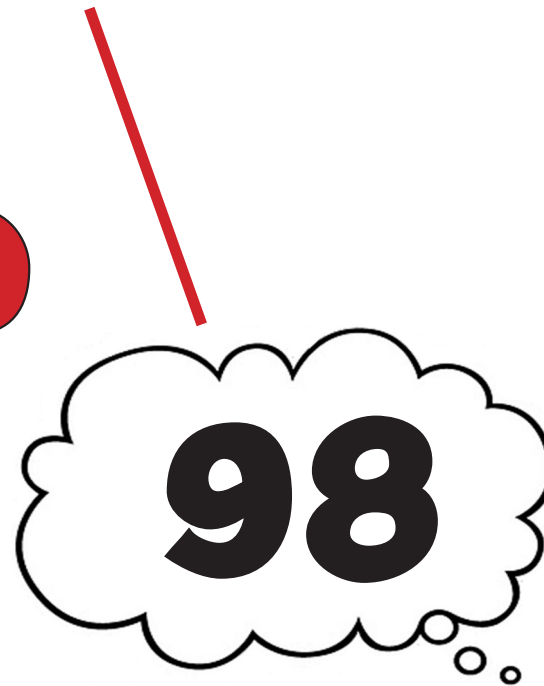
2

Tens

$$58 + 40 = 98$$



+40



MA4a: Counting On

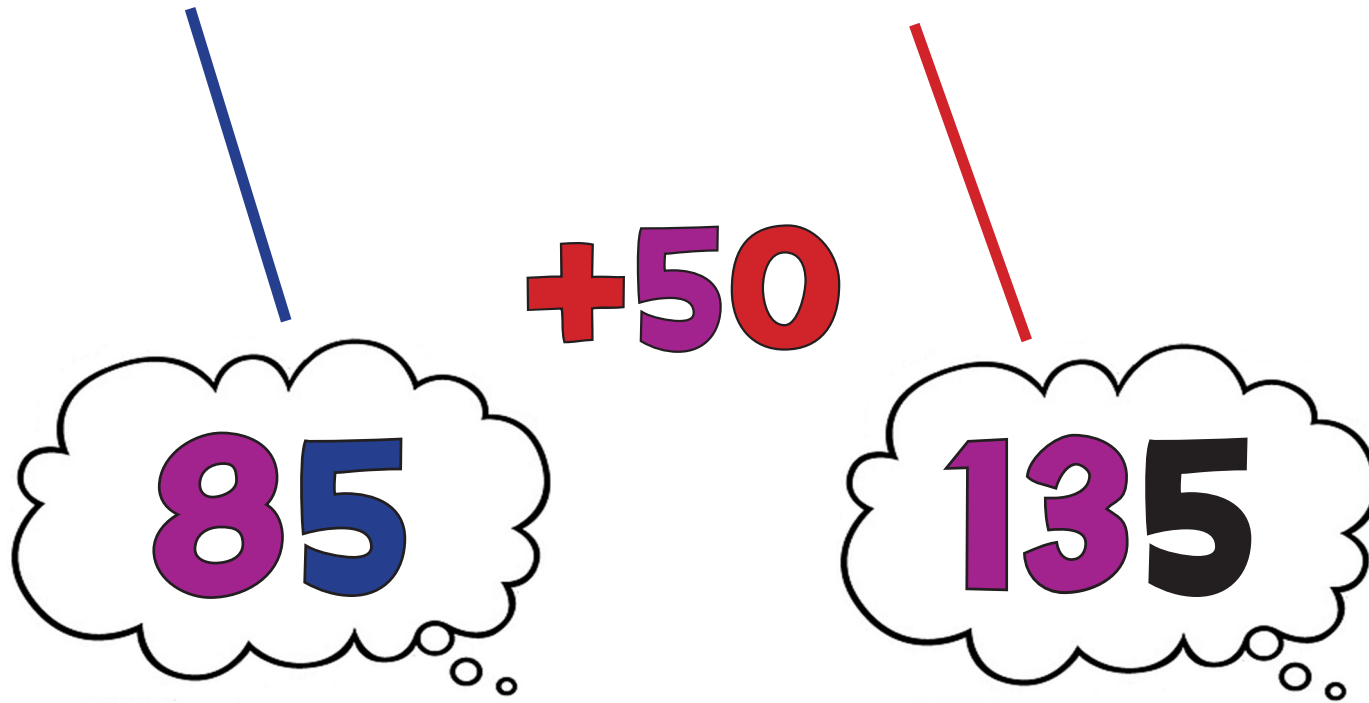
Tens



MC RaPa CoDa Numbo

3

$$85 + 50 = 135$$

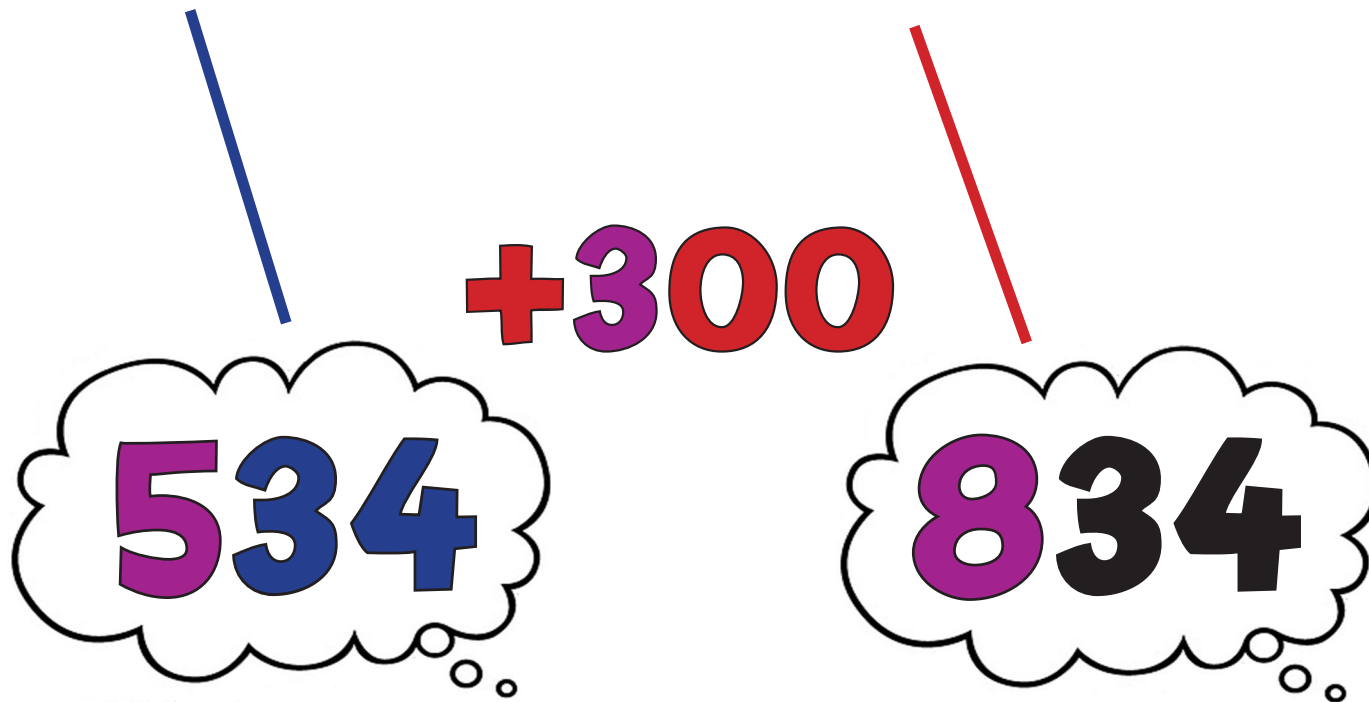


MA4b: Counting On

MC RaPa CoDa Numbo
3

Hundreds

$$534 + 300 = 834$$



MA4a: Counting On

MC RaPa CoDa Numbo
4 Tens



4

$$784 + 60 = 844$$



+60

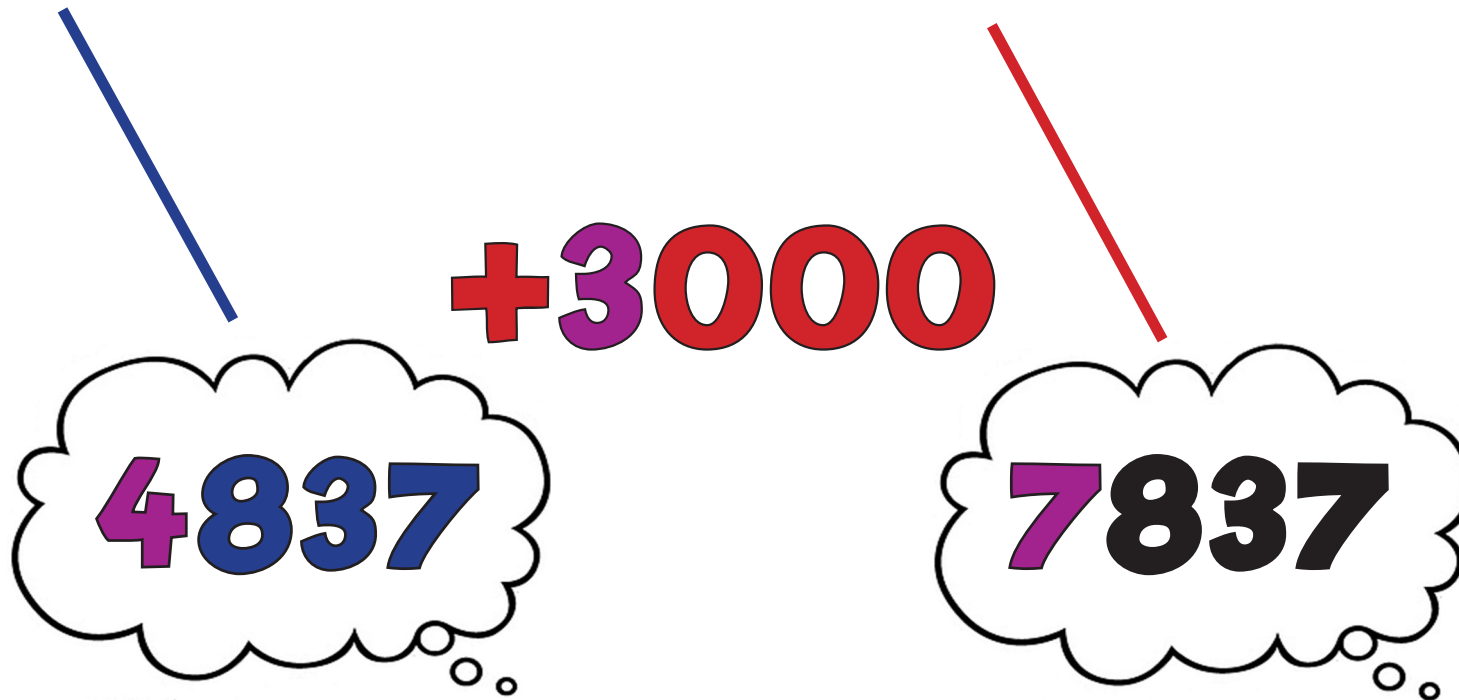


MA4b: Counting On

MC RaPa CoDa Numbo
4

Hundreds

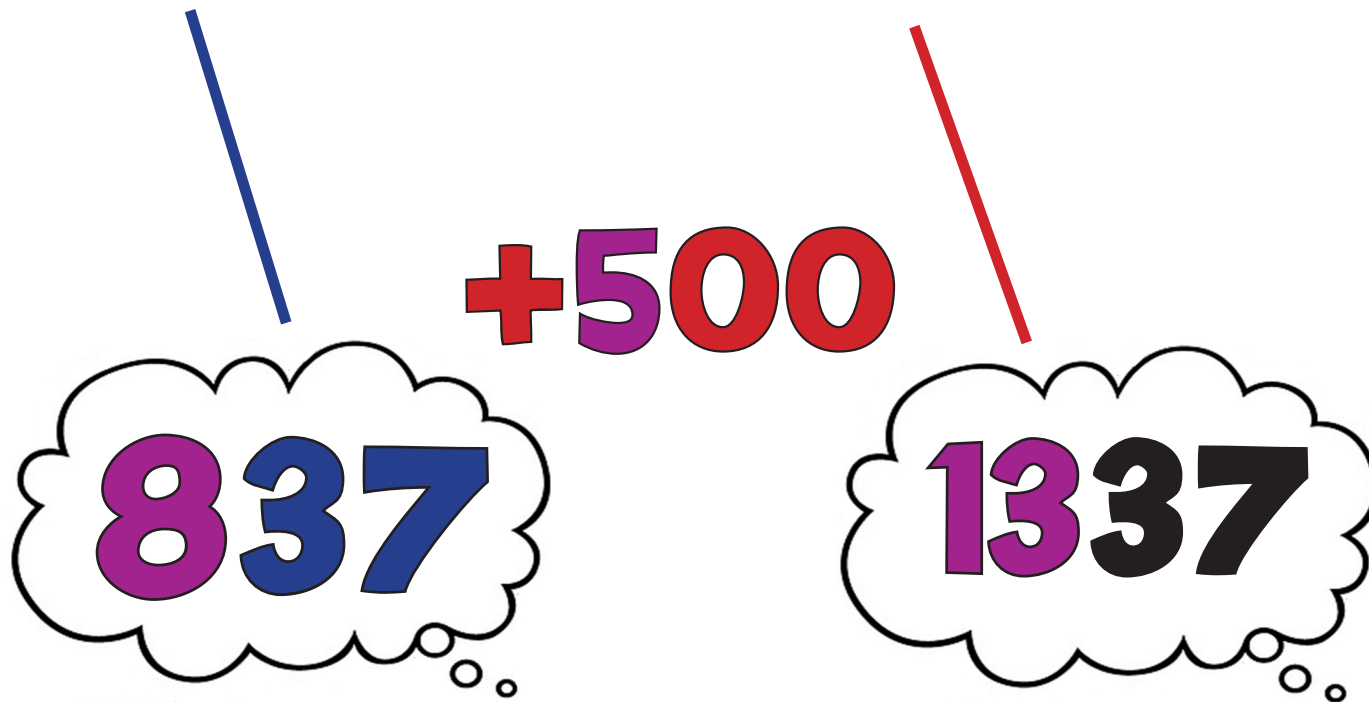
$$4837 + 3000 = 7837$$



MA4a: Counting On

MC RaPa CoDa Numbo
5
Hundreds

$$837 + 500 = 1337$$



MA4b: Counting On

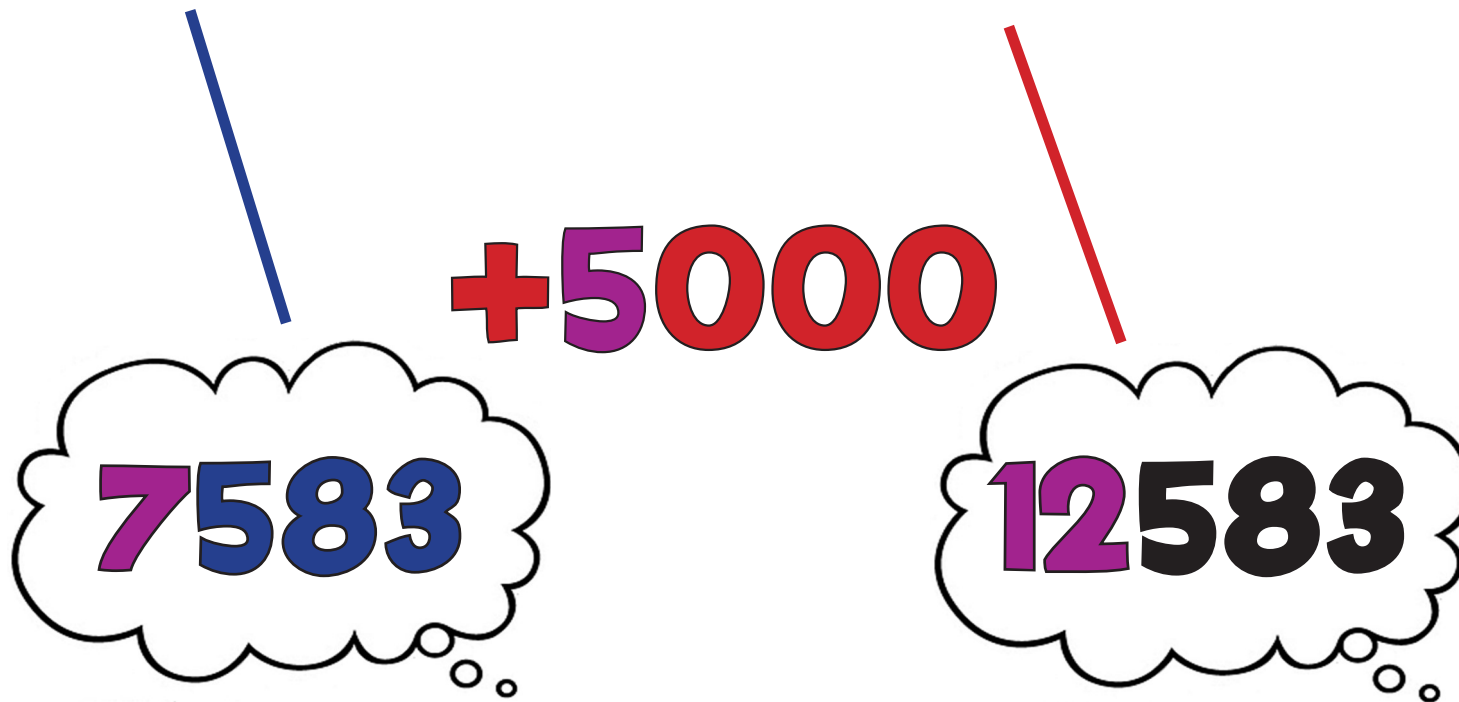
Thousands



MC RaPa CoDa Numbo

5

$$7583 + 5000 = 12583$$



MA4a: Counting On



MC RaPa CoDa Numbo

6

Ten Thousands

$$43,826 + 30,000 = 73,826$$

+30,000

43,826

73,826



MA4b: Counting On

Millions



MC RaPa CoDa Numbo

6

$$5,763,947 + 4,000,000 = 9,763,947$$

+4,000,000

5,763,947

9,763,947



MA5: Double & Adjust



MC RaPa CoDa Numbo

$$45 + 46 = 91$$

45

1

$$90 + 1 = 91$$

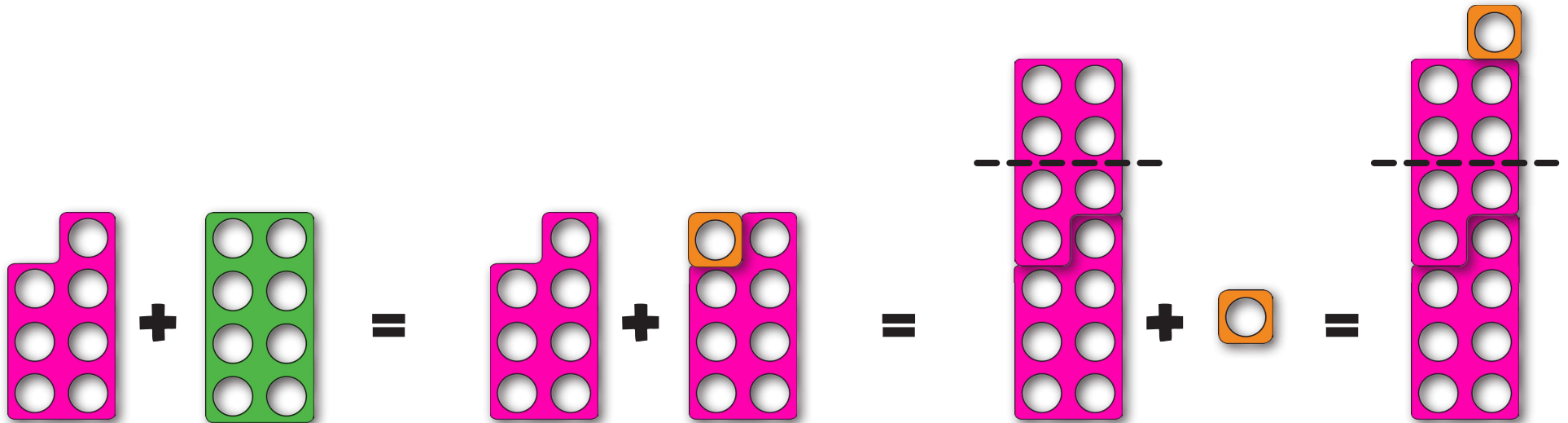


MA5: Double & Adjust



MC RaPa CoDa Numbo
Visualisation

$$7 + 8 = 15$$



$$7 + 8 = 7 + 7 + 1 = 14 + 1 = 15$$



MA5: Double & Adjust



MC RaPa CoDa Numbo

1

$$5 + 6 = 11$$

A diagram illustrating the 'Double & Adjust' strategy. The number 5 is shown in blue. The number 6 is shown in red and is circled. A dotted line connects the 5 to the 6. Below the 6, the number 5 is circled in red, and the number 1 is circled in red. A solid red line connects the circled 6 to the circled 5, and another solid red line connects the circled 6 to the circled 1. A dotted line also connects the circled 5 back to the original 5.

$$10 + 1 = 11$$

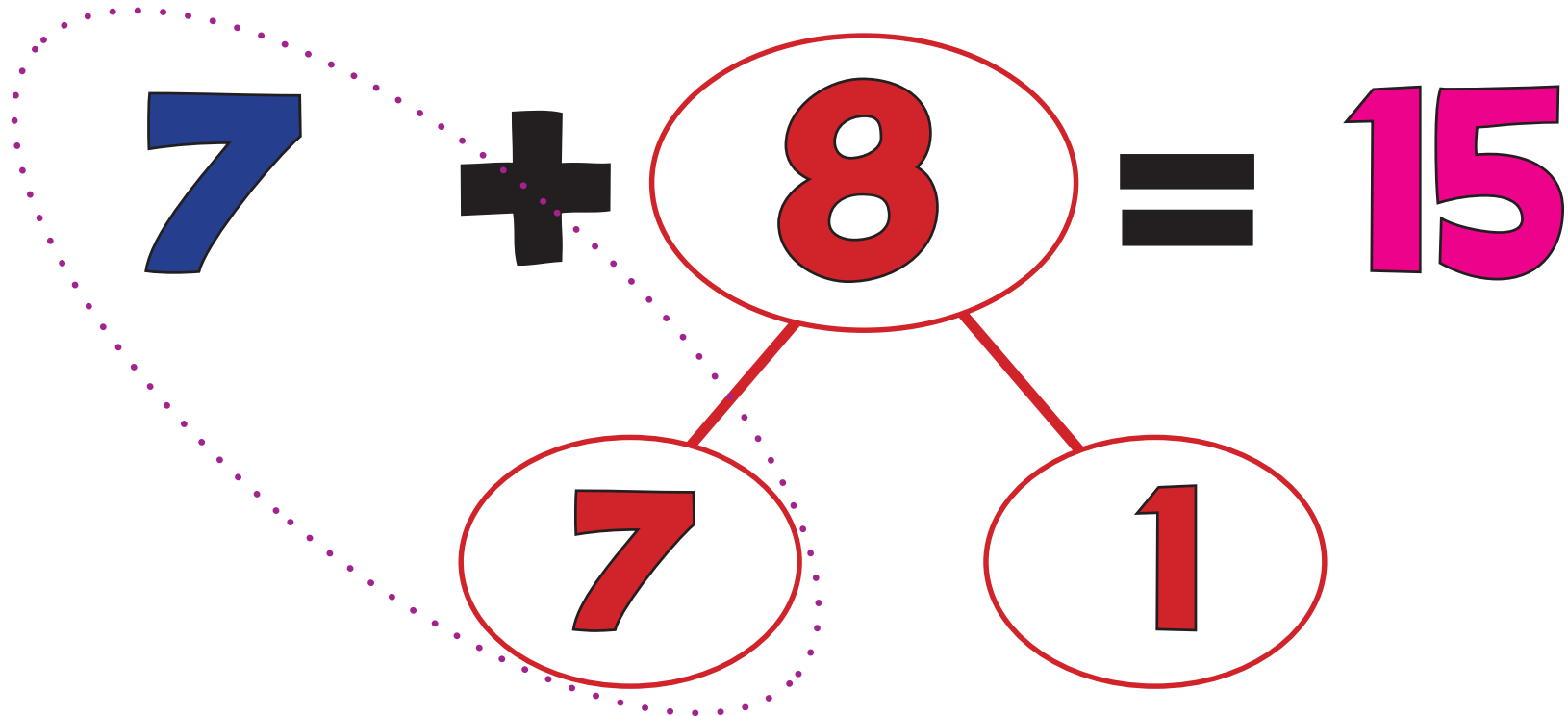


MA5: Double & Adjust



MC RaPa CoDa Numbo

2



MA5: Double & Adjust



MC RaPa CoDa Numbo

3

$$16 + 17 = 33$$



$$32 + 1 = 33$$



MA5: Double & Adjust



MC RaPa CoDa Numbo

4

$$37 + 38 = 75$$

Diagram illustrating the 'Double & Adjust' strategy for the addition $37 + 38 = 75$. The number 38 is circled in red. A dotted line connects 37 to the 38 circle. Below the 38 circle, two red circles are connected by lines: one containing 37 and the other containing 1. A dotted line also connects the 37 circle to the 37 in the main equation.

$$74 + 1 = 75$$



MA5: Double & Adjust



MC RaPa CoDa Numbo

5

$$125 + 127 = 252$$

125

2

$$250 + 2 = 252$$



MA5: Double & Adjust



MC RaPa CoDa Numbo

6

$$4.5 + 4.7 = 9.2$$

4.5

0.2

$$9 + 0.2 = 9.2$$



MA6: Number Bonds



MC RaPa CoDa Numbo

$$45 + 95 = 140$$

$$40 + 100 = 140$$

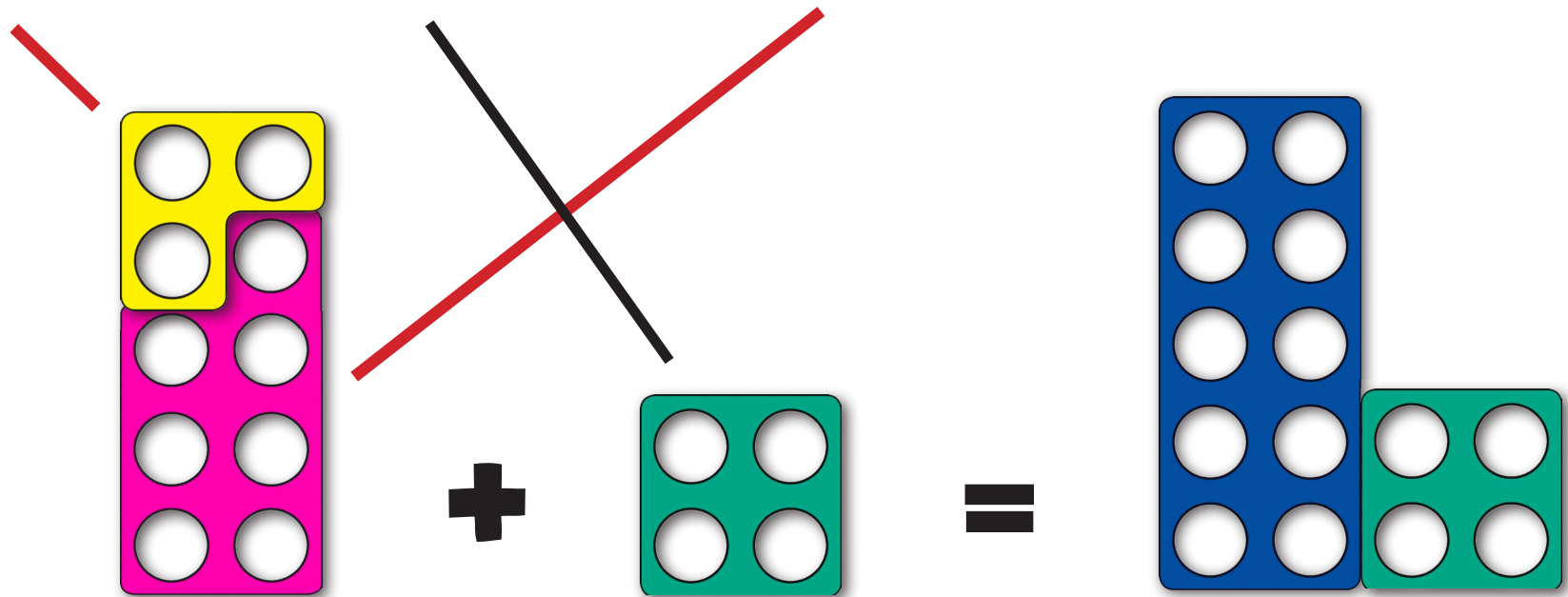


MA6: Number Bonds



MC RaPa CoDa Numbo
Visualisation

$$3 + 4 + 7 = 14$$



MA6: Number Bonds



MC RaPa CoDa Numbo

1

Learn Bonds

0	+	●●●●●●●●●●	10	
1	●	+	●●●●●●●●●●	9
2	●●	+	●●●●●●●●●●	8
3	●●●	+	●●●●●●●●●●	7
4	●●●●	+	●●●●●●●●●●	6
5	●●●●●	+	●●●●●●●●●●	5
6	●●●●●●	+	●●●●●●●●●●	4
7	●●●●●●●	+	●●●●●●●●●●	3
8	●●●●●●●●	+	●●●●●●●●●●	2
9	●●●●●●●●●	+	●●●●●●●●●●	1
10	●●●●●●●●●●	+	●●●●●●●●●●	0

$$0 + 10 = 10$$

$$1 + 9 = 10$$

$$2 + 8 = 10$$

$$3 + 7 = 10$$

$$4 + 6 = 10$$

$$5 + 5 = 10$$

$$6 + 4 = 10$$

$$7 + 3 = 10$$

$$8 + 2 = 10$$

$$9 + 1 = 10$$

$$10 + 0 = 10$$



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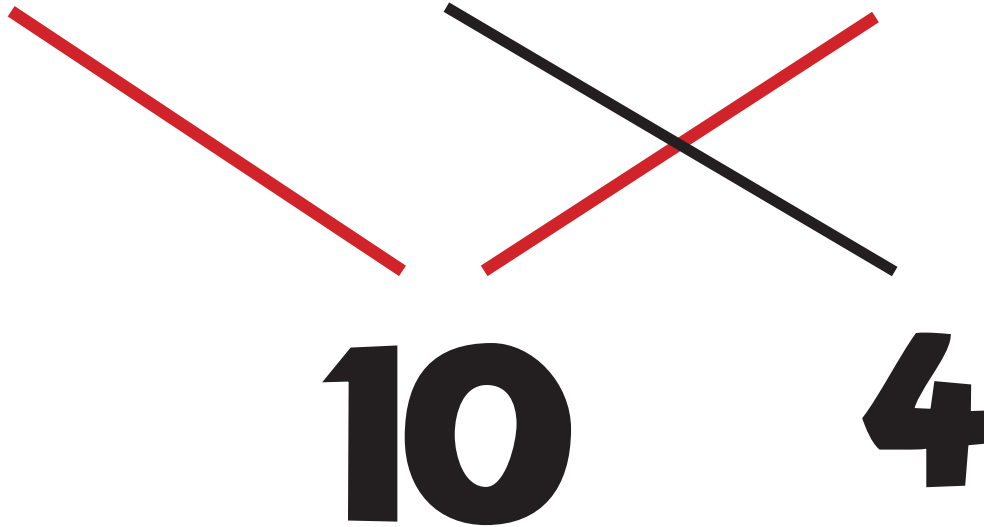
MA6: Number Bonds



MC RaPa CoDa Numbo

2

$$3 + 4 + 7 = 14$$



MA6: Number Bonds



MC RaPa CoDa Numbo

3

$$43 + 9 + 7 + 21 = 80$$

50

30



MA6: Number Bonds



MC RaPa CoDa Numbos

4

$$42 + 16 + 28 + 54 = 140$$

70

70



MA6: Number Bonds



MC RaPa CoDa Numbo

5

$$£4.56 + £3.27 + £1.44 = £9.27$$

£6.00

£3.27



MA6: Number Bonds



MC RaPa CoDa Numbo

6

$$24.25 + 31.63 + 21.75 = 77.63$$

46

31.63



MC RaPa CoOCoB NumFa

69 **MS1 MC = Manipulate Calculation**

77 **MS2 Ra = Round and Adjust**

85 **MS3 Pa = Partitioning**

91 **MS4 CoO = Counting On**

108 **MS5 CoB = Counting Back**

123 **MS6 NumFa = Number Facts**



6 Cool Strategies for Mental Subtraction!



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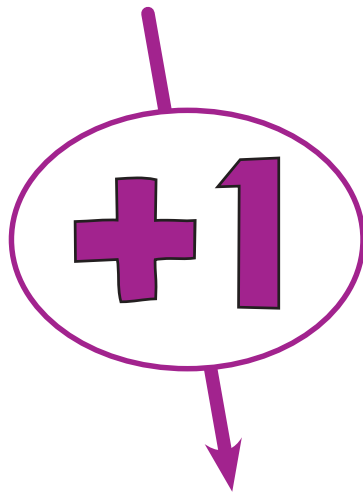


MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa

$$84 - 29 = 55$$



$$85 - 30 = 55$$



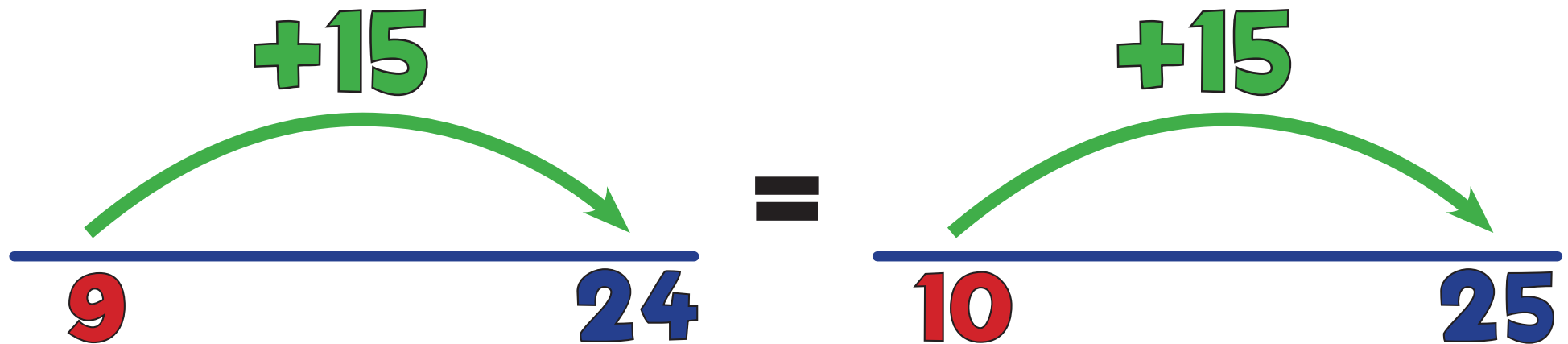
MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa
Visualisation

Same Difference!

$$24 - 9 = 15$$



$$24 - 9 = 25 - 10$$
$$(24 + 1) - (9 + 1)$$



MS1: Manipulate Calculation



MC RaPa CoOCob NumFa

1

Same Difference!

$$24 - 9 = 15$$



$$25 - 10 = 15$$



MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa

2

Same Difference!

$$84 - 29 = 55$$



$$85 - 30 = 55$$



MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa

3

Same Difference!

$$463 - 97 = 366$$



$$466 - 100 = 366$$



MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa

4

Same Difference!

$$876 - 298 = 578$$



$$878 - 300 = 578$$



MS1: Manipulate Calculation



MC RaPa CoOCoB NumFa

5

Same Difference!

$$5864 - 2996 = 2868$$



$$5868 - 3000 = 2868$$



MS1: Manipulate Calculation

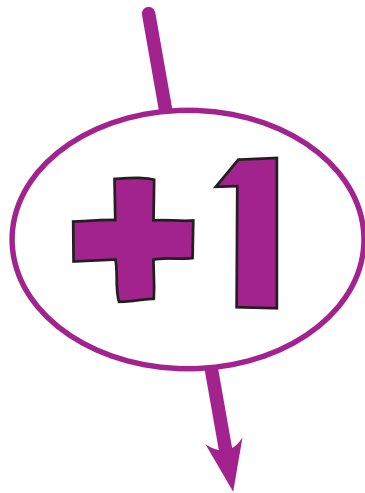


MC RaPa CoOCoB NumFa

6

Same Difference!

$$46357 - 11999 = 34358$$



$$46358 - 12000 = 34358$$



MS2: Round & Adjust



MC RaPa CoOCoB NumFa

$$84 - 29 = 55$$

$$84 - 30 + 1$$

Diagram showing the relationship between the original problem and the adjusted problem. A blue line connects the 84 in the first equation to the 54 in the second equation. A red line connects the 30 in the first equation to the 54 in the second equation. Another red line connects the 29 in the first equation to the 1 in the second equation.

$$54 + 1 = 55$$

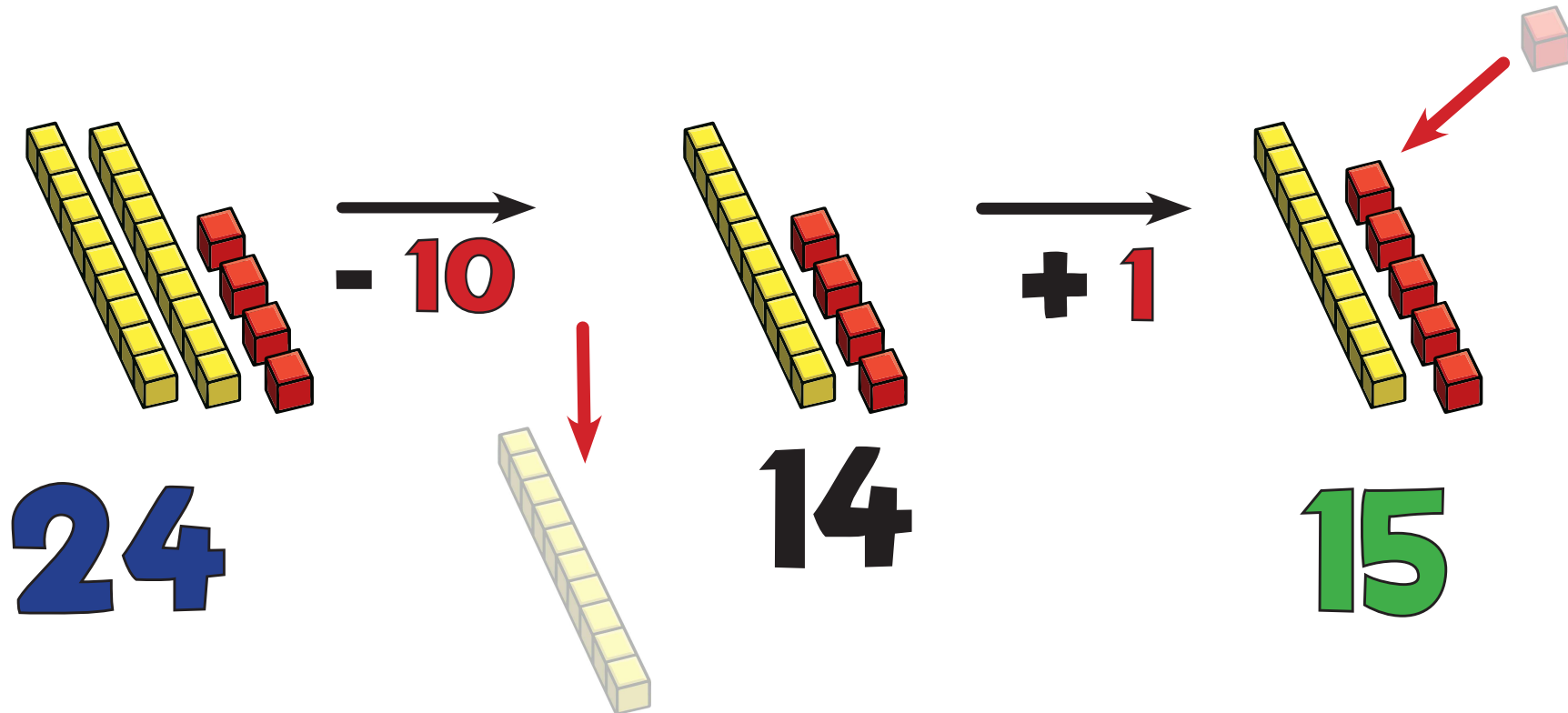


MS2: Round & Adjust



MC RaPa CoOCoB NumFa
Visualisation

$$24 - 9 = 15$$



MS2: Round & Adjust



MC RaPa CoOCoB NumFa

1

$$24 - 9 = 15$$

$$24 - 10 + 1$$

$$14 + 1 = 15$$



MS2: Round & Adjust



MC RaPa CoOCoB NumFa

2

$$84 - 29 = 55$$

$$84 - 30 + 1$$

Diagram showing the relationship between the original problem and the adjusted problem. A blue line connects the 84 in the first equation to the 54 in the second equation. Two red lines connect the 29 in the first equation to the 30 and 1 in the second equation.

$$54 + 1 = 55$$



MS2: Round & Adjust



MC RaPa CoOCoB NumFa

3

$$463 - 97 = 366$$

$$463 - 100 + 3$$

$$363 + 3 = 366$$



MA2: Round & Adjust



MC RaPa CoOCoB NumFa

4

$$876 - 298 = 578$$

$$876 - 300 + 2$$

$$576 + 2 = 578$$



MA2: Round & Adjust



MC RaPa CoOCoB NumFa

5

$$5864 - 2996 = 2868$$

$$5864 - 3000 + 4$$

$$2864 + 4 = 2868$$



MS2: Round & Adjust



MC RaPa CoOCoB NumFa

6

$$46357 - 11999 = 34358$$

$$46357 - 12000 + 1$$

$$46357 + 1 = 34358$$



MS3: Partitioning



MC RaPa CoOCoB NumFa

$$63 - 35 = 28$$

$$- 33 - 2$$

63

30

28



MS3: Partitioning



MC RaPa CoOCoB NumFa
Visualisation

$$63 - 35 = 28$$

28 30 63



MS3: Partitioning



MC RaPa CoOCoB NumFa

1

$$23 - 8 = 15$$

$$- 3 - 5$$

23

20

15



MS3: Partitioning



MC RaPa CoOCoB NumFa

2

$$63 - 35 = 28$$

$$- 33 - 2$$

63

30

28



MS3: Partitioning



MC RaPa CoOCoB NumFa

3

$$123 - 28 = 95$$

$$- 23 - 5$$

123

100

95



MS3: Partitioning



MC RaPa CoOCoB NumFa

4

$$132 - 58 = 74$$

$$- 52 - 6$$

132

80

74



MS3: Partitioning



MC RaPa CoOCoB NumFa

5

$$750 - 372 = 378$$

$$- 350 - 22$$

750

400

378



MS3: Partitioning



MC RaPa CoOCoB NumFa

6

$$£64.30 - £24.50 = £39.80$$

$$- £24.30 - 20p$$

£64.30

£40

£39.80



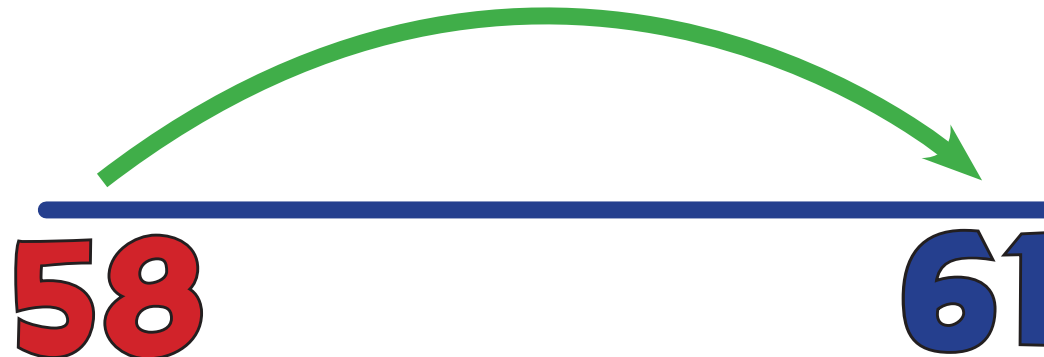
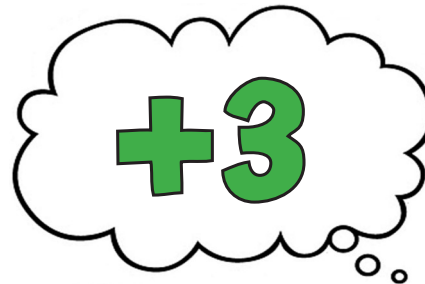
MS4a: Counting On



MC RaPa CoOCoB NumFa

Small Difference

$$61 - 58 = 3$$



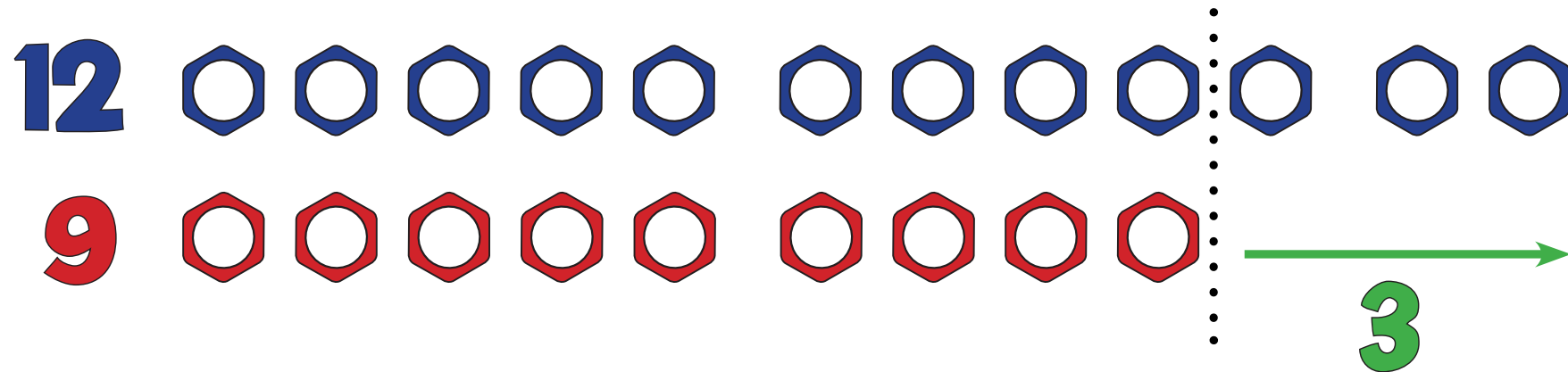
MS4a: Counting On



MC RaPa CoOCoB NumFa
Visualisation

Small Difference

$$12 - 9 = 3$$



MS4a: Counting On

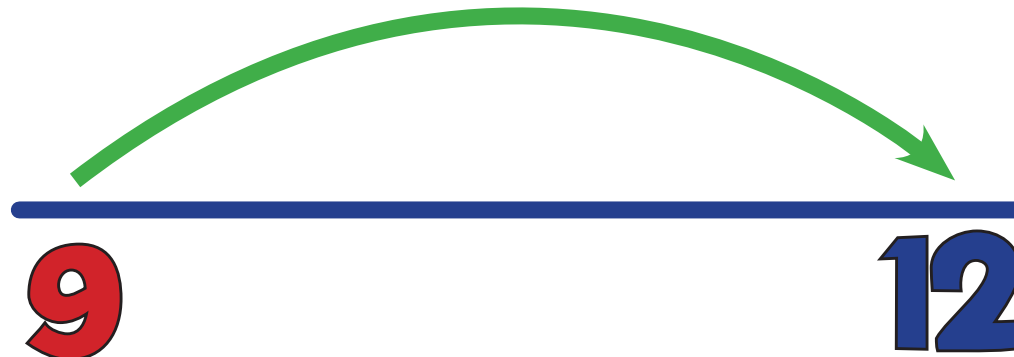
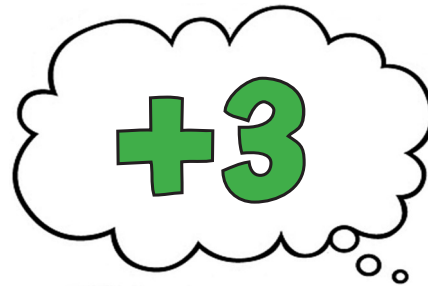


MC RaPa CoOCoB NumFa

1

Small Difference

$$12 - 9 = 3$$



MS4a: Counting On

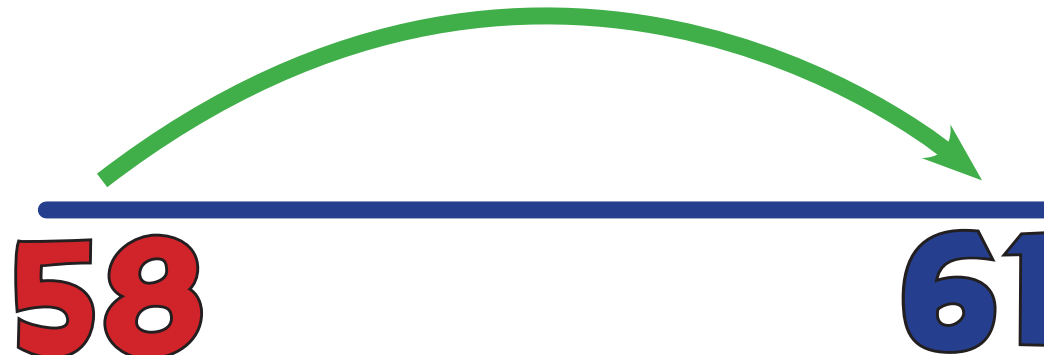
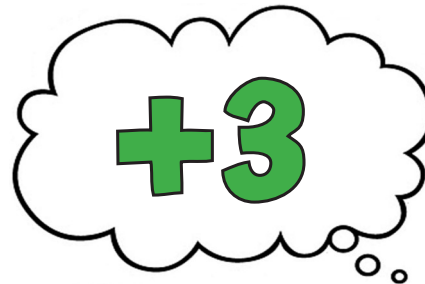


MC RaPa CoOCoB NumFa

2

Small Difference

$$61 - 58 = 3$$



MS4a: Counting On

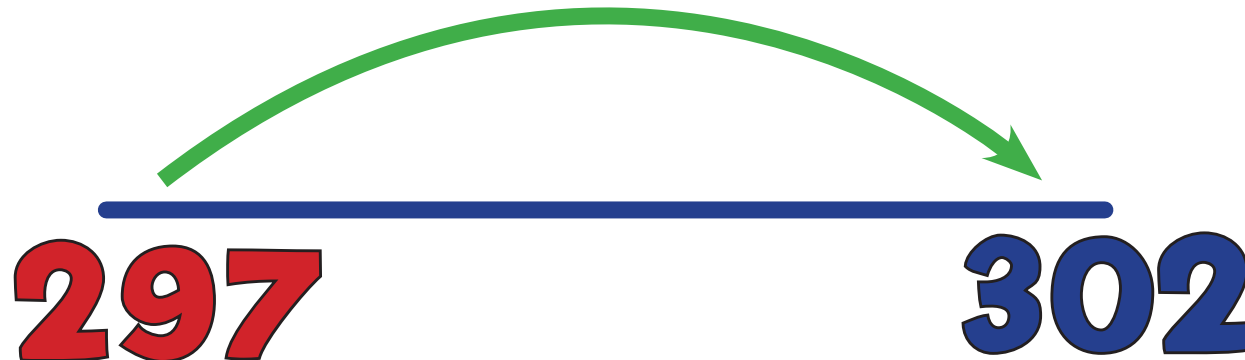


MC RaPa CoOCoB NumFa

3

Small Difference

$$302 - 297 = 5$$



MS4a: Counting On

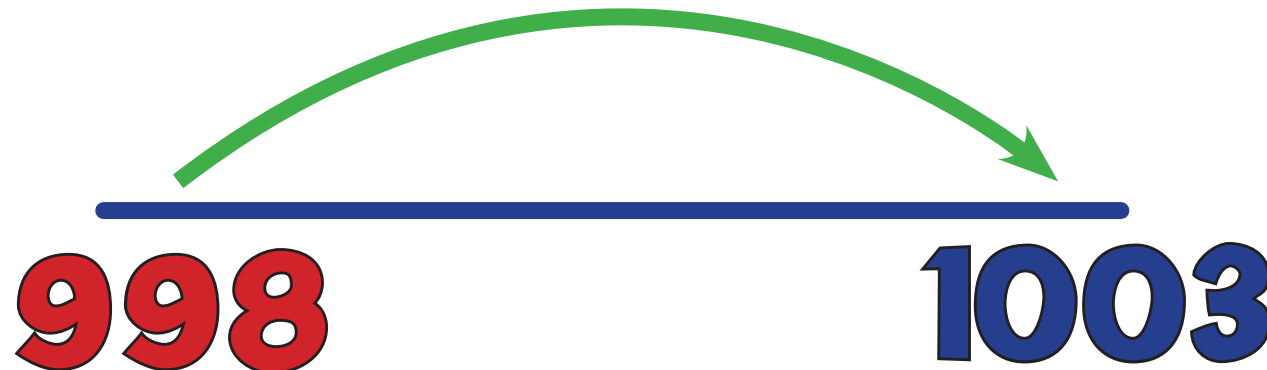


MC RaPa CoOCoB NumFa

4

Small Difference

$$1003 - 998 = 5$$



MS4a: Counting On



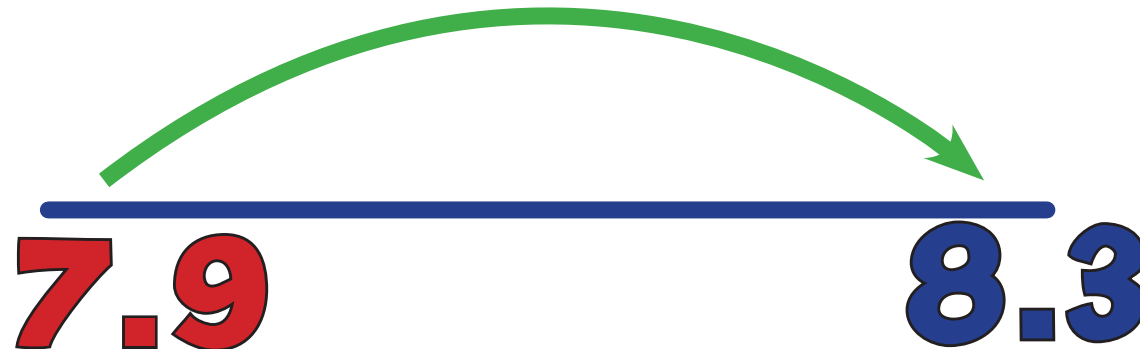
MC RaPa CoOCoB NumFa

5

Small Difference

$$8.3 - 7.9 = 0.4$$

+0.4



MS4a: Counting On

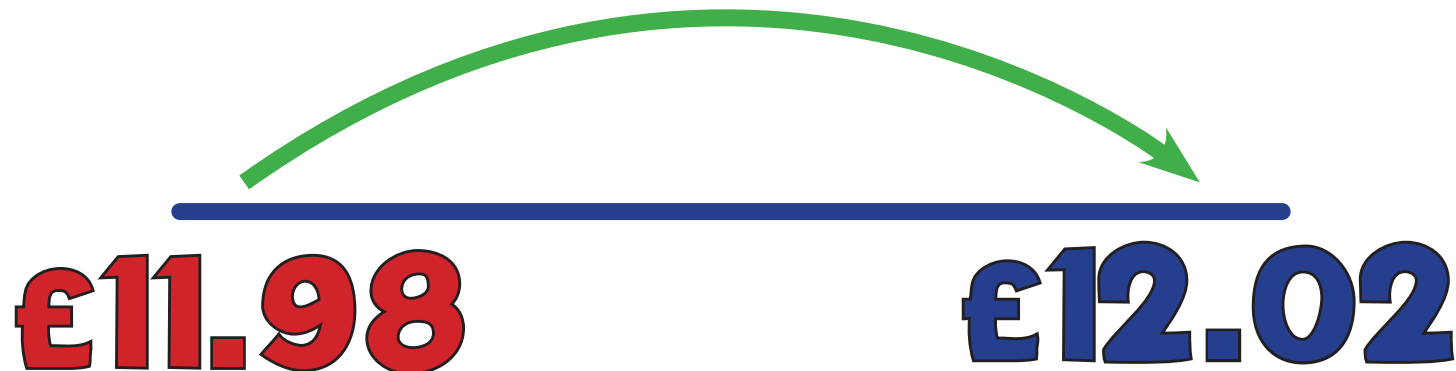


MC RaPa CoOCoB NumFa

6

Small Difference

$$€12.02 - €11.98 = 4p$$



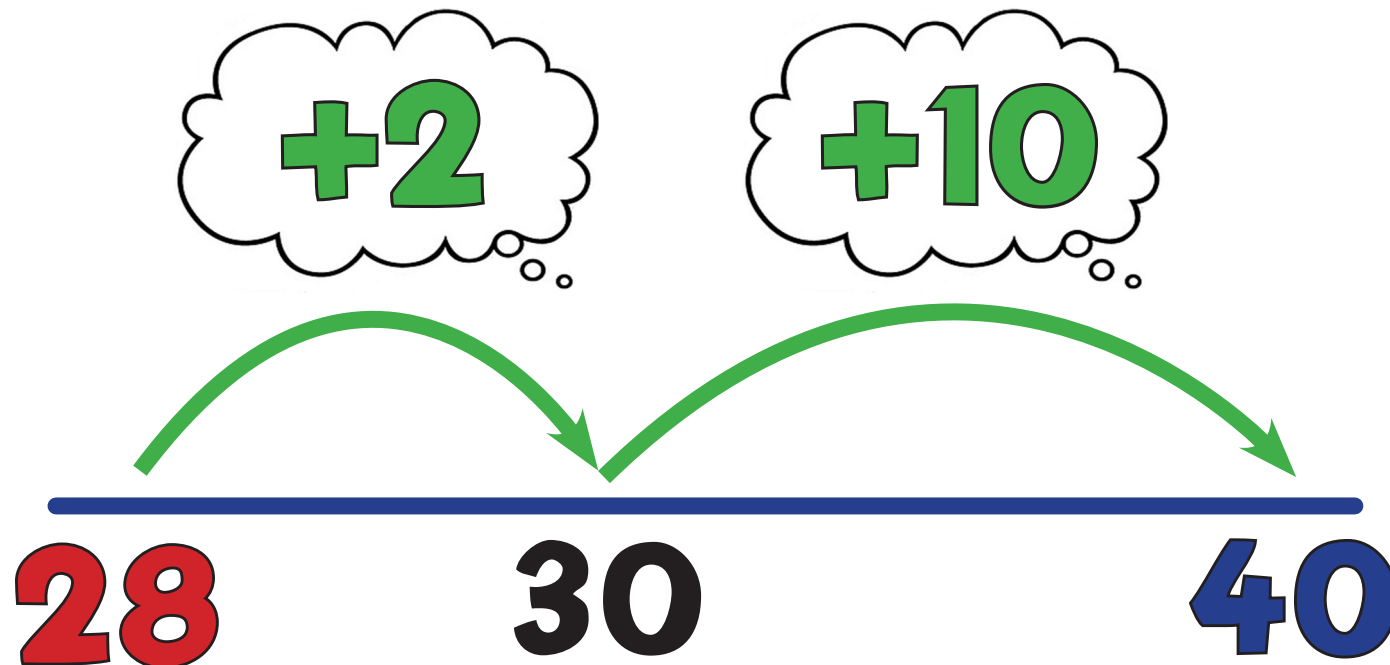
MS4b: Counting On

MC RaPa CoOCoB NumFa

Jumps



$$40 - 28 = 12$$

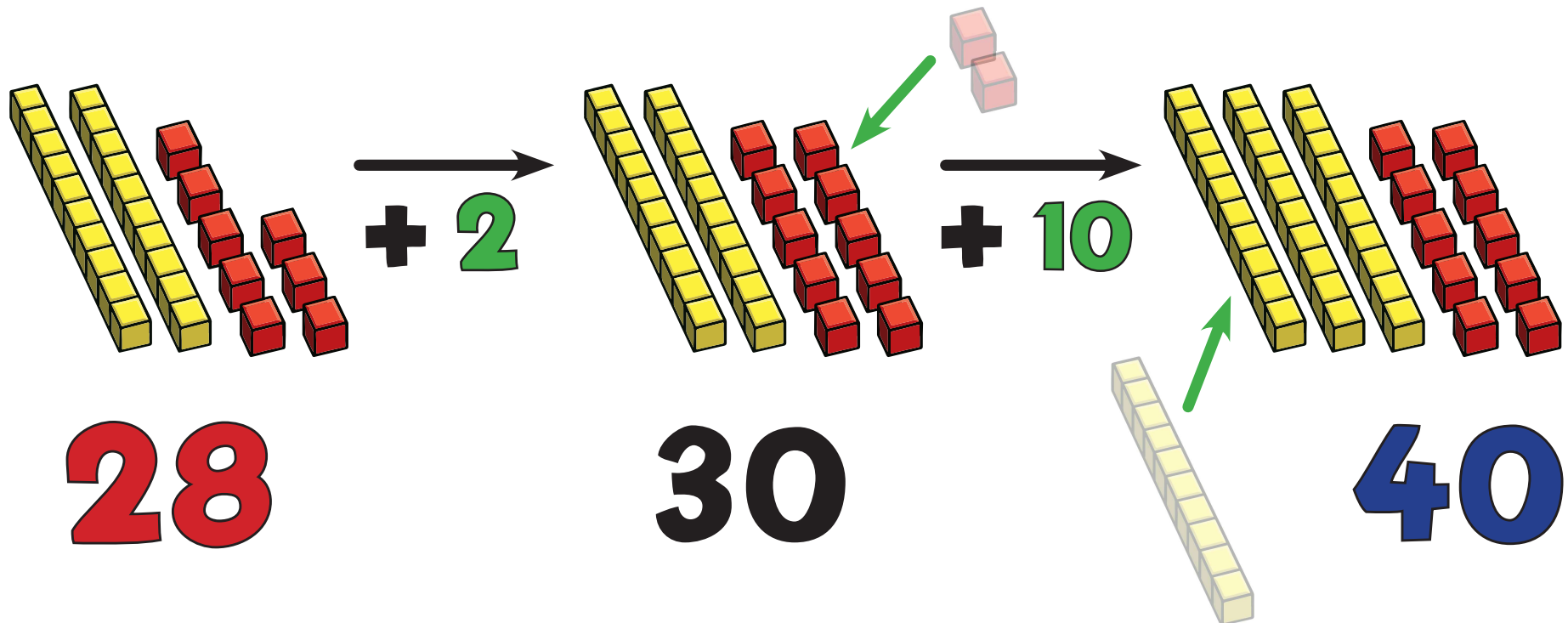


MS4b: Counting On

MC RaPa CoOCoB NumFa
Visualisation

Jumps

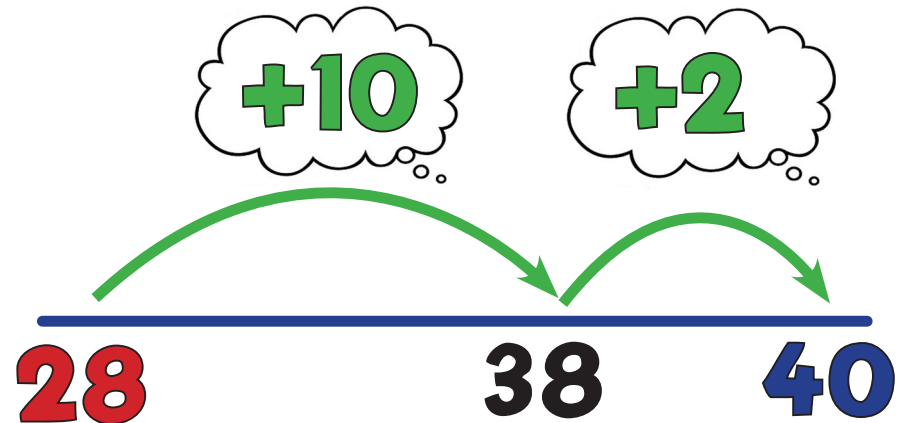
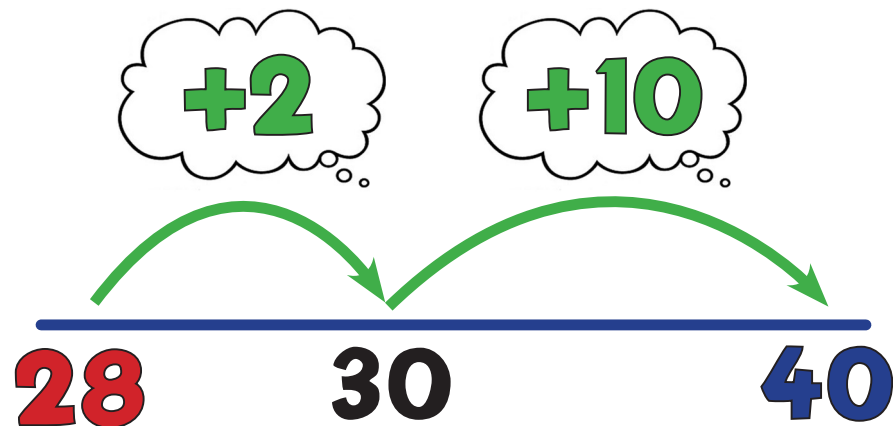
$$40 - 28 = 12$$



MS4b: Counting On

MC RaPa CoOCoB NumFa
2 Jumps

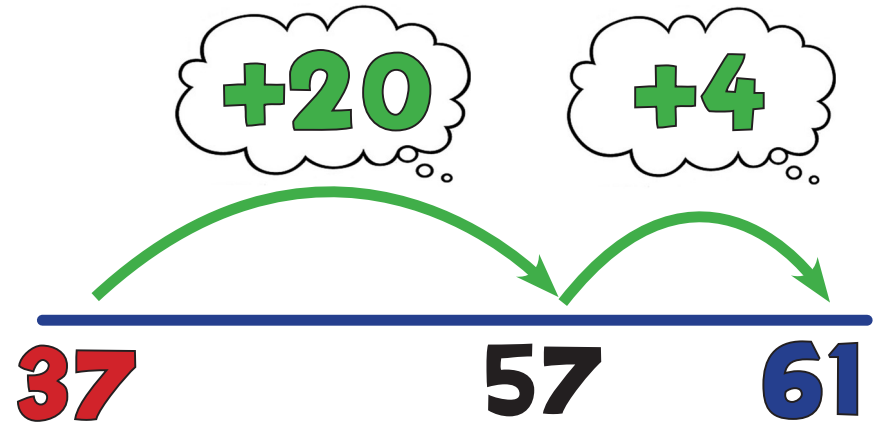
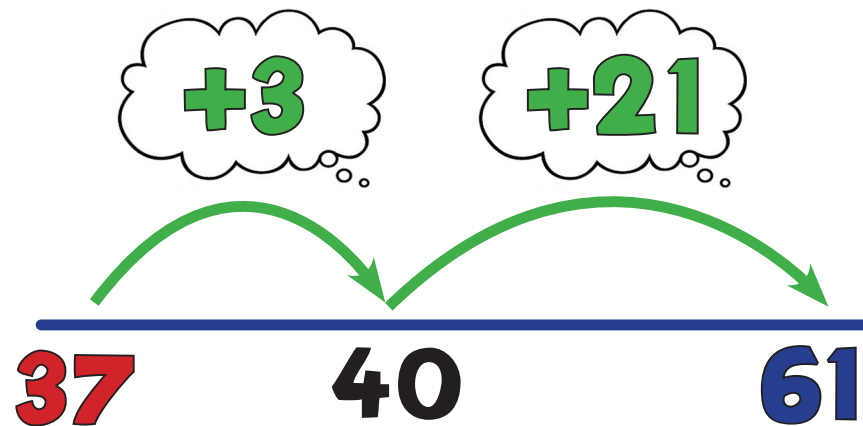
$$40 - 28 = 12$$



MS4b: Counting On

MC RaPa CoOCoB NumFa
3 Jumps

$$61 - 37 = 24$$

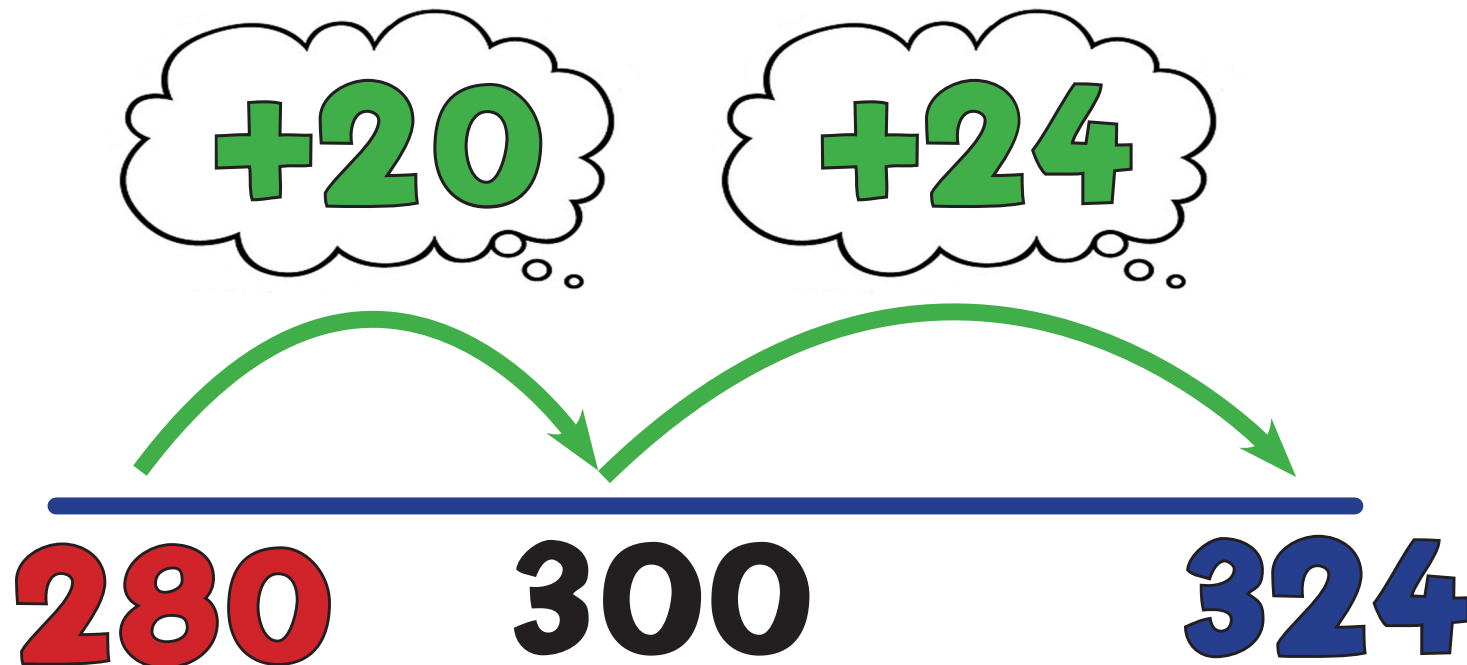


MS4b: Counting On

MC RaPa CoOCoB NumFa
4 Jumps



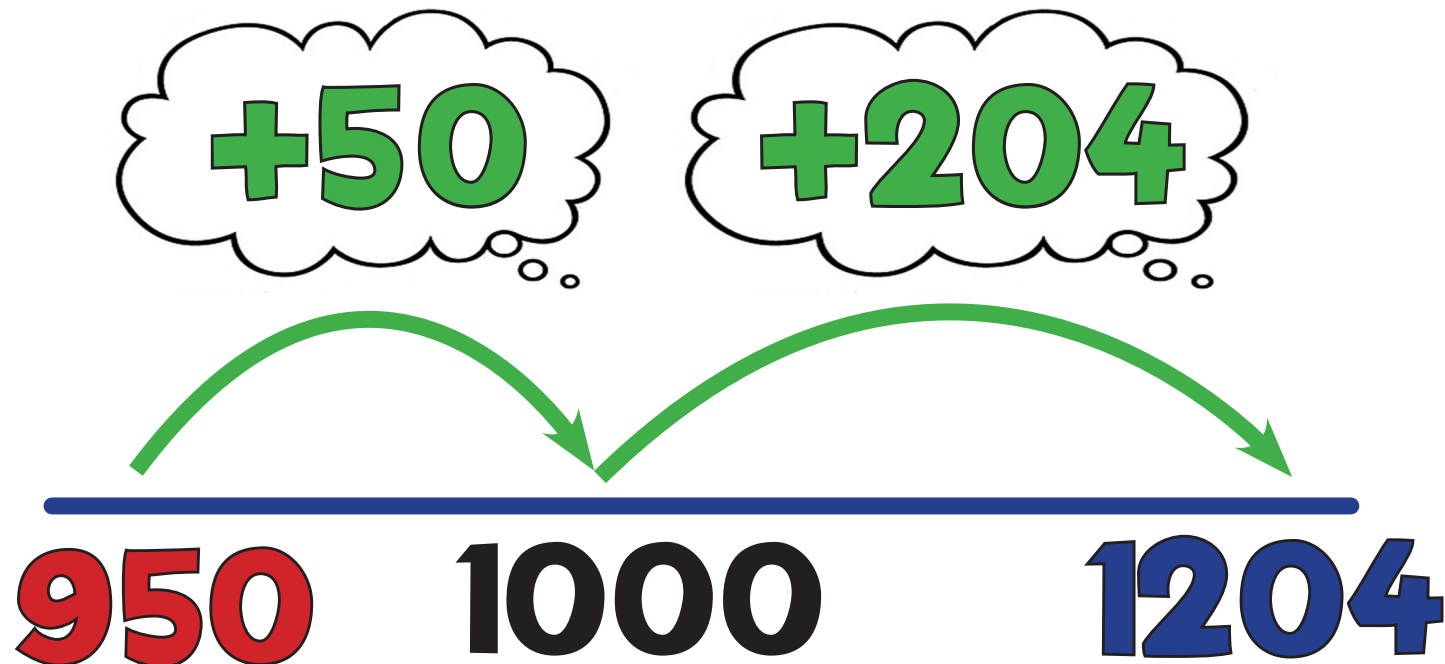
$$324 - 280 = 44$$



MS4b: Counting On

MC RaPa CoOCoB NumFa
5 Jumps

$$1204 - 950 = 254$$



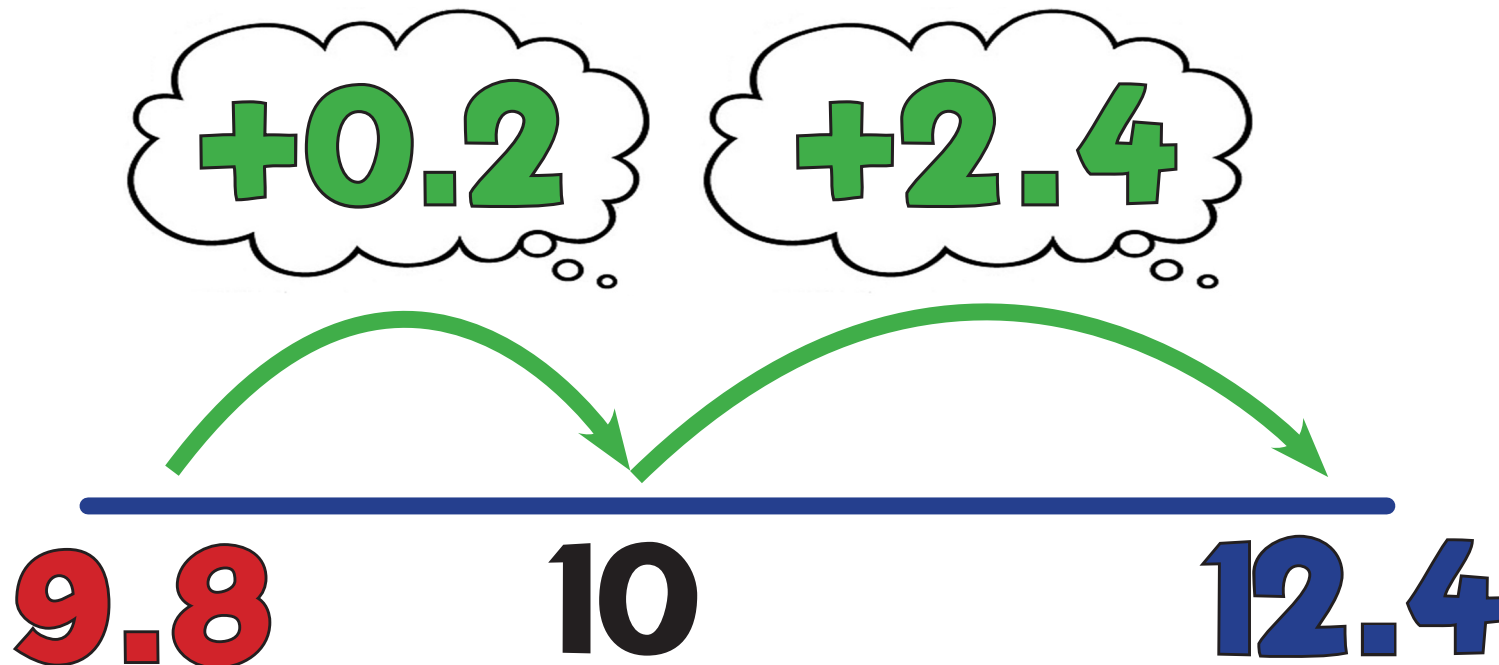
MS4b: Counting On

MC RaPa CoOCoB NumFa

6

Jumps

$$12.4 - 9.8 = 2.6$$

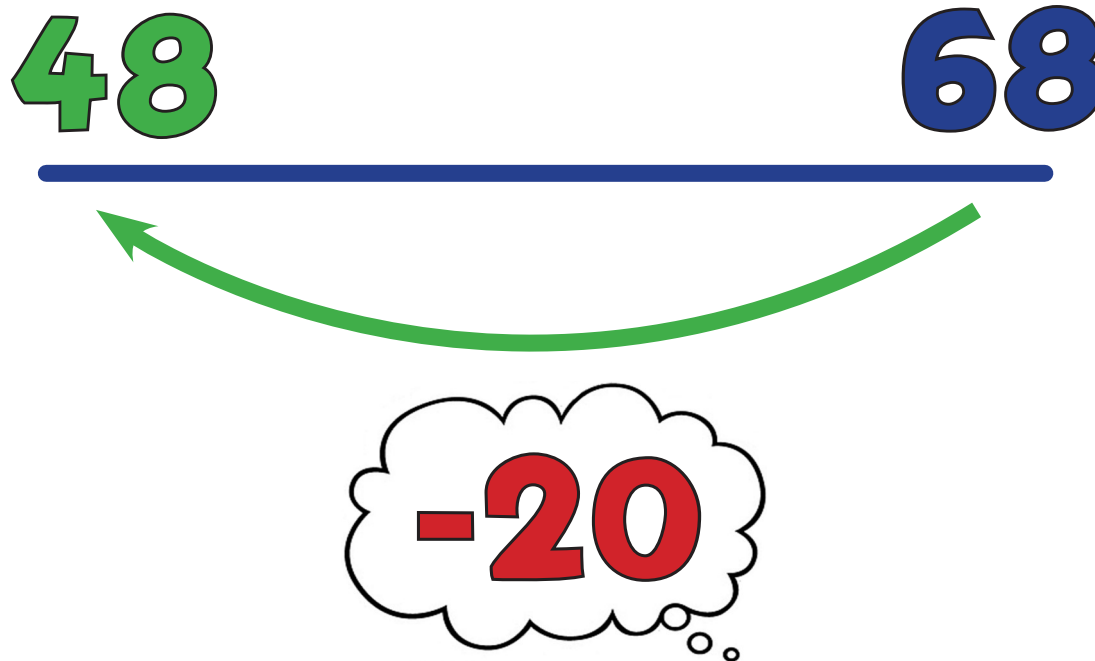


MS5a: Counting Back



MC RaPa CoOCoB NumFa

$$68 - 20 = 48$$

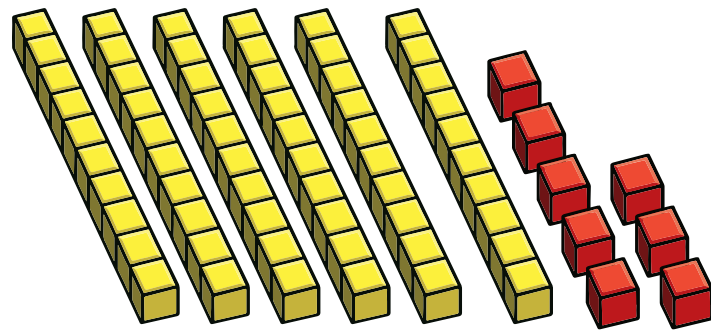


MS5a: Counting Back



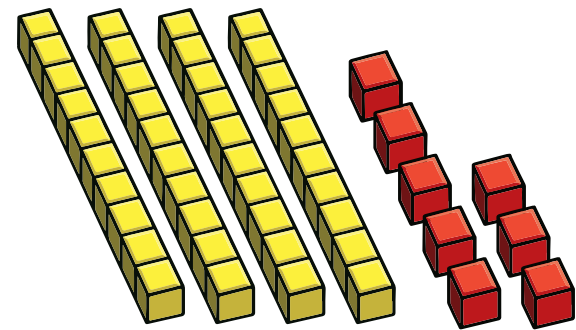
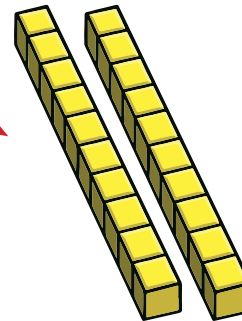
MC RaPa CoOCoB NumFa
Visualisation

$$68 - 20 = 48$$



68

-20



48



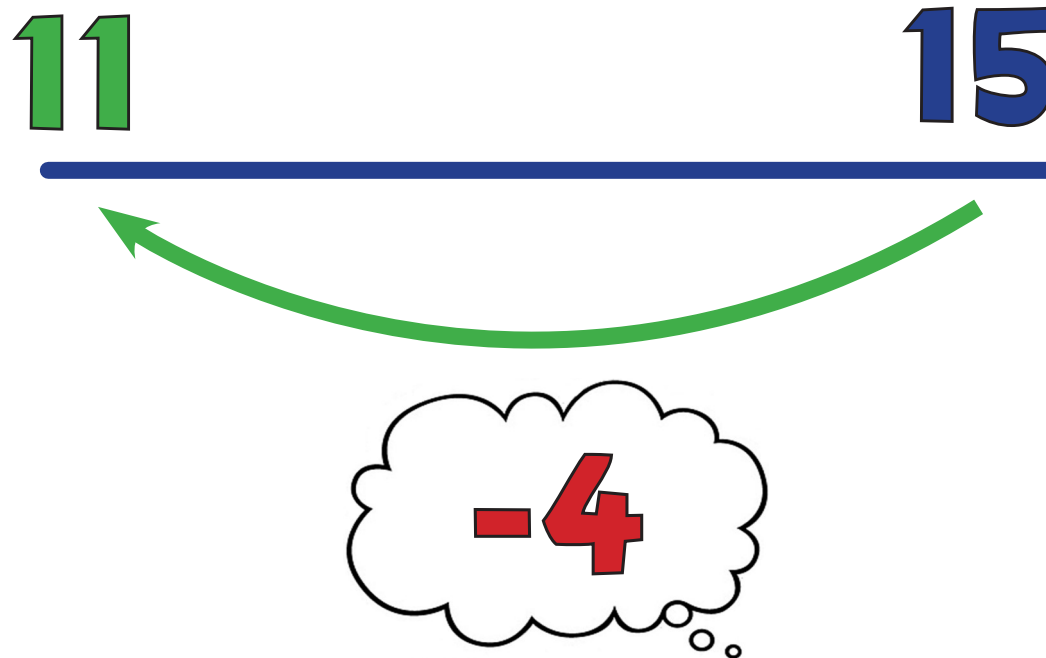
MS5a: Counting Back



MC RaPa CoOCoB NumFa

1

$$15 - 4 = 11$$



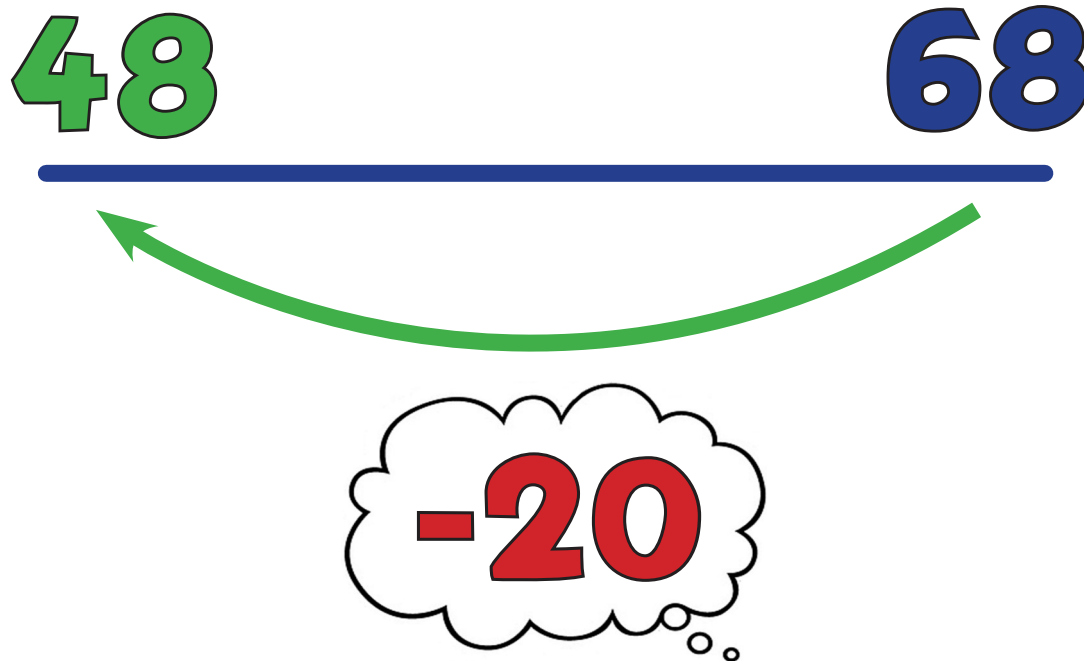
MS5a: Counting Back



MC RaPa CoOCoB NumFa

2

$$68 - 20 = 48$$



MS5a: Counting Back



MC RaPa CoOCoB NumFa

3

$$378 - 50 = 328$$

328

378



MS5a: Counting Back



MC RaPa CoOCoB NumFa

4

$$768 - 200 = 568$$

568

768



-200



MS5a: Counting Back



MC RaPa CoOCoB NumFa

5

$$7291 - 2000 = 5291$$

5291

7291



-2000



MS5a: Counting Back



MC RaPa CoOCoB NumFa

6

$$86374 - 20000 = 66374$$

66374

86374



-20000



MS5b: Counting Back



MC RaPa CoOCoB NumFa

Jumps

$$86 - 12 = 74$$

-

10

-

2

86

76

74



MS5b: Counting Back



MC RaPa CoOCoB NumFa
Visualisation

Jumps

$$86 - 12 = 74$$

74 76 86



-2

-10



MS5b: Counting Back



MC RaPa CoOCoB NumFa

2

Jumps

$$86 - 12 = 74$$

-

10

-

2

86

76

74



MS5b: Counting Back



MC RaPa CoOCoB NumFa

3

Jumps

$$89 - 34 = 55$$

$$- 30$$

$$- 4$$

89

59

55



MS5b: Counting Back



MC RaPa CoOCoB NumFa

4

Jumps

$$578 - 45 = 533$$

$$- 40 - 5$$

578

538

533



MS5b: Counting Back



MC RaPa CoOCoB NumFa

5

Jumps

$$8.6 - 4.1 = 4.5$$

$- 4 \quad - 0.1$

8.6

4.6

4.5



MS5b: Counting Back



MC RaPa CoOCoB NumFa

6

Jumps

$$\text{€}65.87 - \text{€}30.24 = \text{€}35.63$$

$-\text{€}30 \quad -24\text{p}$

€65.87

€35.87

€35.63



MS6: Number Facts



MC RaPa CoOCoB NumFa

$$61 - 41 = 20$$

$$41 + 20 = 61$$



MS6: Number Facts



MC RaPa CoOCoB NumFa
Visualisation

$$61 - 41 = 20$$

$$41 + 20 = 61$$

40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70



MS6: Number Facts



MC RaPa CoOCob NumFa

1

$$19 - 9 = 10$$

$$9 + 10 = 19$$



MS6: Number Facts



MC RaPa CoOCoB NumFa

2

$$61 - 41 = 20$$

$$41 + 20 = 61$$



MS6: Number Facts



MC RaPa CoOCoB NumFa

3

$$123 - 83 = 40$$

$$83 + 40 = 123$$



MS6: Number Facts



MC RaPa CoOCoB NumFa

4

$$847 - 447 = 400$$

$$447 + 400 = 847$$



MS6: Number Facts



MC RaPa CoOCoB NumFa

5

$$1424 - 724 = 700$$

$$724 + 700 = 1424$$



MS6: Number Facts



MC RaPa CoOCoB NumFa

6

$$13.2 - 9.2 = 4$$

$$9.2 + 4 = 13.2$$

