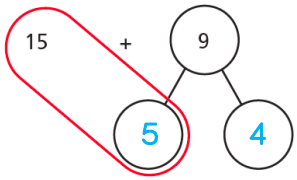
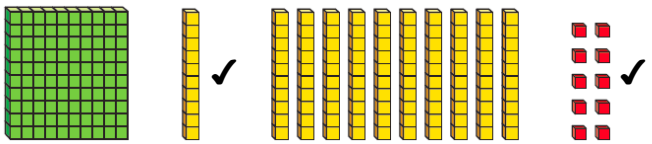
Y3 ?dd and subtract 3-digit and 1-digit numbers – not crossing 10 Answers

Question	Answer
1	237
2	a) 325 – 3 b) 322
3	a) 475 + 1 = 476 475 + 2 = 477 475 + 3 = 478 475 + 4 = 479 b) 475 – 1 = 474 475 – 2 = 473 475 – 3 = 472 475 – 4 = 471 475 – 5 = 470
4	a) 657 b) Tom has subtracted 2 tens instead of 2 ones.
5	a) 279 b) 272 c) 310 d) 316 e) 408 f) 274 g) 628 h) 481 i) 4 j) 1 k) 5 l) 2
6	529
7	396 + 1 or 391 + 6 139 – 6 391 + 6 or 396 + 1 169 – 3
8	a) 784 + 4 = 788 b) 970 + 3 = 973 c) 178 – 5 = 173
9	764 + 3 = 767, 767 + 2 = 769 3 + 2 = 5, 764 + 5 = 769
10	even Scott's number must have ended with a zero and all numbers ending in zero are even.

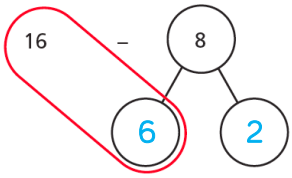
Y2 – Add a 2-digit and a 1-digit number - crossing ten Answers

Question	Answer
1	a) 16 + 1 = 17 16 + 2 = 18 16 + 3 = 19 16 + 4 = 20 16 + 5 = 21 16 + 6 = 22 b) 16 + 7 = 23 We can work out 16 + 7 by adding 1 to 16 + 6
2	b) 10 + 3 = 13 c)  20 + 4 = 24
3	a) 23 b) 22 c) 25 d) 22 e) 23 f) 21
4	 Both representations show 10, but one is 1 ten while the other is 10 ones.
5	a) 31 b) 42 c) 61 d) 30
6	a) 31 b) 42 c) 61 d) 30 e) 83 f) 73 g) 62 h) 62

Y3 – ?dd 3-digit and 1-digit numbers – crossing 10 Answers

Question	Answer
1	a) 192 Add the ones to get 12 ones. Put 12 ones = 1 ten + 2 ones Add 1 ten and 2 ones to 180 b) 354
2	a) 643 b) 251 c) 351
3	a) 301 b) 670 c) 432 d) 834
4	a) 426 + 6 422 + 5 427 + 3 429 + 1 420 + 8 423 + 7 b) 376 + 4 = 380 535 + 5 = 540 219 + 1 = 220 2 + 658 = 660
5	No. When the ones digit of the 3-digit number and the 1-digit number add up to more than 10, then the tens digit in the 3-digit number will change, e.g. 456 + 7 = 463
6	a) 345 + 7 = 352 b) 725 + 6 = 731 c) 459 + 3 = 462 d) 9 + 179 = 188 e) 348 + 7 = 355 f) 315 + 8 = 323
7	possible answers: 917 + 8 = 925 918 + 7 = 925 197 + 8 = 205 198 + 7 = 205 781 + 9 = 790 789 + 1 = 790 871 + 9 = 880 879 + 1 = 880
8	£4

Y2 Qubtraction – crossing 10 Answers

Question	Answer
1	a) 22 – 1 = 21 22 – 2 = 20 22 – 3 = 19 22 – 4 = 18 22 – 5 = 17 22 – 6 = 16 b) 22 – 7 = 15 We can work out 22 – 7 by subtracting 1 from 22 – 6
2	b) 10 – 7 = 3 c)  10 – 2 = 8
3	a) 5 b) 6 c) 9 d) 8 e) 6 f) 9
4	a) 17 b) 28 c) 16 We can find the difference by subtracting the number of units in the first number and then subtracting the number of units that are left over.
5	a) 24 b) 37 c) 24 d) 29 e) 65 f) 55 g) 46 h) 38
6	subtraction using the three cards, e.g. 67 – 2 There are six different possible subtractions: 67 – 2, 62 – 7, 76 – 2, 72 – 6, 26 – 7, 27 – 6 greatest difference: 74 smallest difference: 19

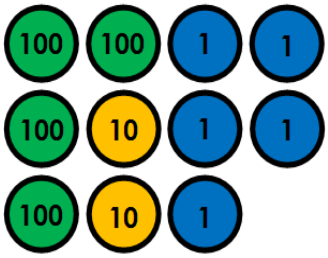
Reasoning 1

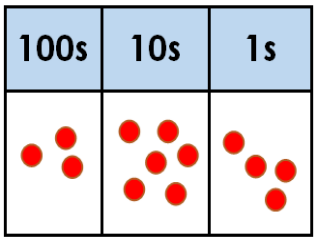
Modelled DAB Reasoning Responses

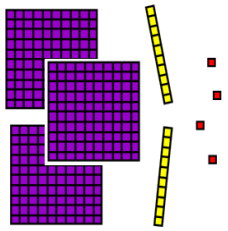
D – The numbers are not ordered from greatest to smallest.

A – The first number represented is 324. The second is 425 and the third is 364.

B – The greatest number is 425, followed by 364 then 324. The images should be ordered like this:







Problem Solving 1

A should be between 230 and 345. B should be greater than 345.

Possible solutions:

A = 234 B = 350

A = 235 B = 403

A = 305 B = 432

A = 320 B = 453

A = 340 B = 523

Reasoning 2

Modelled DAB Reasoning Response

D – Jerry is correct.

A – The 8th number in the sequence will be 400.

B – We could prove this in more than one way. We could continue the sequence until we get to the 8th number:

1st	2nd	3rd	4th	5th	6th	7th	8th
50	100	150	200	250	300	350	400

This shows that the 8th number is 400. Or, you could double the fourth number (200)to find the eighth, 200 x 2 = 400.

Download our 'DAB' posters to support reasoning in your classroom:

https://www.deepeningunderstanding.co.uk/product/dab-reasoning-posters/

Problem Solving 2

50, 100, 150, 200, 250

100, 150, 200, 250, 300

250, 300, 350, 400, 450

300, 350, 400, 450, 500

450, 500, 550, 600, 650

500, 550, 600, 650, 700

650, 700, 750, 800, 850

700, 750, 800, 850, 900

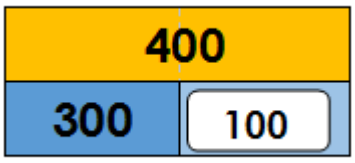
Reasoning 3

Modelled DAB Reasoning Responses

D – Alfie has made a mistake

A – The missing number is not 700.

B – Alfie has added the numbers together instead of subtracting. On a bar model, the top part represents the total. So the calculation should be 400 – 300 = 100. So the missing number should be 100.



Problem Solving 3

There are 6 possible calculations with a total of 700.

100 + 600 = 700

200 + 500 = 700

300 + 400 = 700

400 + 300 = 700

500 + 200 = 700

600 + 100 = 700