Reasoning and Problem Solving Multi-Step Problems

Developing

1a. 954m tall

2a. If A has 141 marbles and C has 293 marbles, then B must have 66 marbles (500 – 141 – 293).

3a. Various answers, for example: Lucie needs 414g of flour for her recipe. She has 255g in her bowl and then pours in another 334g. How much will she need to remove from the bowl to make her total? The missing number is 175g.

Expected

4a. Yes. £4,522 + £1,897 (£4,522 – £2,625) + £3,437 (£1.897 + £1,540) = £9,856

5a. If A has 4,906 stickers and C has 3,698 stickers, B must have 688 stickers (9,292 – 4,906 – 3,698 = 688).

6a. Ryan is measuring ingredients to make lemonade. He needs 6,399ml of water. He starts with 7,866ml so needs to remove some, but he takes too much. How much does he need to add to make his total? The missing number is 2,905ml.

Greater Depth

7a. No. 2,264 (Jan) + 1,132 (Feb) + 3,630 (Mar) = 7,026

8a. A = 2,242; B = 5,501; C = 1,121 – there are 1,121 more in box A.

9a. Khadija knows that there are 8,672 items of stationery in the school cupboard. Using the table below, work out how many pencils there must be. The missing number is 3,899.

Reasoning and Problem Solving Multi-Step Problems

Developing

1b. 935 books

2b. If A has 423 stamps and B has 198 stamps, C must have 102 stamps (723 – 423 – 198).

3b. Various answers, for example: Omar needs 317cm of string. He starts with 512cm but cuts too much, and has to add another piece which is 123cm long. How much did he cut? The missing number is 318cm.

Expected

4b. 9,800 tins of pet food

5b. If A has 1,197 counters and B has 1,783 counters, then C must have 1,518 counters (4,498 – 1,197 – 1,783).

6b. Miles has £6,688 in his bank account. If he earns £2,501 in one month, how much does he spend if his final balance is £7,626 at the end of the month? The missing number is £1,563.

Greater Depth

7b. 2016 = 2,267; 2017 = 5,063; 2018 = 2,085 - the total is 9,415 bookings.

8b. A = 4,606; B = 2,303; C = 2,658 – there are 355 more in Box C.

9b. Yellow Class are analysing the results of a traffic survey. If they saw 500 more cars at 11:00, how many cars did they see in total? The total would be 9,549.