1a. Taron has answered the following calculation:

$$1{,}214 + 483 = 1{,}617$$

Use an approximate calculation to explain whether Taron's answer is likely to be correct.

R

2a. Kiera has been given the numbers below:

| 2,374 | 4,306 | 914 |

She wants to show the approximate total of the three numbers using place value counters, but she only has thousands counters.

How many thousands counters will she need?

PS

3a. Ibrahim wants to give away 73 of his building bricks.

He has 200 bricks in his collection.

He estimates he will have 130 bricks left after he has given the bricks away.

Is Ibrahim's estimation correct? Prove it.

4a. Rocco has answered the following calculation:

$$43{,}795 - 17{,}489 = 35{,}842$$

Use an approximate calculation to explain whether Rocco's answer is likely to be correct.

R

5a. Shuri has been given the numbers below:

| 774 | 19,035 | 2,912 |

She wants to show the approximate total of the three numbers using place value counters, but she only has thousands counters.

How many thousands counters will she need?

PS

6a. Jackson wants to buy a basketball. It costs £14.79.

He has £70 in his bank account.

He estimates he will have £45 left after he has bought the ball.

Is Jackson's estimation correct? Prove it.

7a. Sean has answered the following calculation:

$$28{,}034\text{m} + 8\tfrac{1}{4}\text{ km} = 36{,}284\text{m}$$

Use an approximate calculation to explain whether Sean's answer is likely to be correct.

R

8a. Isla has been given the amounts below:

| 1,288p | 4,846p | £329.74 |

She wants to show the approximate total of the three amounts using real money, but she only has one pound coins.

How many one pound coins will she need?

PS

9a. Max has to put up $9\tfrac{3}{4}$ km of telephone wires.

He has 20,000m of wire.

He estimates he will have 10,000m of wire left after doing the job.

Is Max's estimation correct? Prove it.

Answers – Tricky

1a. Various answers (depending on what the children choose to round to), for example: Taron's answer is likely to be incorrect because (when rounding to the nearest 100) an approximate answer to the calculation is 1,200 + 500 = 1,700, but Taron's answer would round to 1,600.
2a. 7 counters.
3a. Ibrahim is correct because 73 rounds down to 70. 200 – 70 = 130.

Answers - Trickier

4a. Various answers (depending on what the children choose to round to), for example: Rocco's answer is likely to be incorrect because (when rounding to the nearest 1,000) an approximate answer to the calculation is 44,000 – 17,000 = 27,000, but Rocco's answer would round to 36,000.
5a. 23 counters.
6a. Jackson is incorrect because £14.79 rounds up to £15. £70 – £15 = £55, not £45.

Answers - Trickiest

7a. Various answers (depending on what the children choose to round to), for example: Sean's answer is likely to be correct because (when rounding to the nearest 1,000) an approximate answer to the calculation is 28,000m + 8,000m = 36,000m, and Sean's answer would round to 36,000m.
8a. 391 coins.
9a. Max is correct because $9\frac{3}{4}$ km rounds up to 10,000m. 20,000m – 10,000m = 10,000m.