

## Q1. (2018)

|   |                                                                                        |    |                                                                                                         |
|---|----------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------|
| 8 | 20, 20, 20, 10, 5, 5                                                                   | B2 | Any order<br>B1 for<br>20, 20, 10, 5, 5, 5<br>or<br>20, 20, 10, 10, 5, 5<br>or<br>20, 20, 20, 20, 10, 5 |
|   | <b>Additional Guidance</b>                                                             |    |                                                                                                         |
|   | Mark answer line first, if blank look for clear indication of six banknotes in working |    |                                                                                                         |
|   | $20 \times 3, 10, 5 \times 2$                                                          |    | B2                                                                                                      |
|   | Answer not using six banknotes                                                         |    | B0                                                                                                      |
|   | Answer using values other than 5, 10 or 20                                             |    | B0                                                                                                      |

## Q2. (2019)

(A)

|      |                                                                                                                                                                     |       |                                                       |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------|
| 6(a) | <b>Alternative method 1</b>                                                                                                                                         |       |                                                       |
|      | 8.8(0) ÷ 11 or (0).8(0)<br>or 880 ÷ 11 or 80                                                                                                                        | M1    | oe<br>8.8(0) × 14 or 123.2(0)<br>or 880 × 14 or 12320 |
|      | their (0).8(0) × 3 (+ 8.8(0))<br>or 2.4(0) (+ 8.8(0))<br>or their 80 × 3 (+ 880)<br>or 240 (+ 880)<br>or their (0).8(0) × 14<br>or their 80 × 14<br>or 11.2 or 1120 | M1dep | oe<br>their 123.2(0) + 11<br>or their 12320 + 11      |
|      | 11.20                                                                                                                                                               | A1    | Condone (£)11.20p                                     |
|      | <b>Alternative method 2</b>                                                                                                                                         |       |                                                       |
|      | 11 ÷ 8.8(0) or 1.25<br>or 11 ÷ 880 or 0.0125                                                                                                                        | M1    | oe                                                    |
|      | 14 ÷ their 1.25 or 14 ÷ their 0.0125<br>or 11.2 or 1120                                                                                                             | M1dep | oe                                                    |
|      | 11.20                                                                                                                                                               | A1    | Condone (£)11.20p                                     |
|      | <b>Additional Guidance</b>                                                                                                                                          |       |                                                       |
|      | $8.8(0) \times \frac{14}{11}$ or $8.8(0) \times 1.27(\dots)$                                                                                                        |       | M1M1                                                  |
|      | $\frac{56}{5}$ is oe for 11.2                                                                                                                                       |       | M1M1                                                  |
|      | $\frac{4}{5}$ is oe for 0.8, $\frac{5}{4}$ is oe for 1.25, $\frac{1}{80}$ is oe for 0.0125                                                                          |       | M1                                                    |

(B)

|      |                                                                                                                                                            |      |                                                                                                                                                                           |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6(b) | <b>Alternative method 1 – answer in (a) correct or answer in (a) not used</b>                                                                              |      |                                                                                                                                                                           |
|      | Ticks the box<br>The total cost is <b>less</b> than my answer to part (a)<br>and<br>correct reason                                                         | B2   | correct reasons include<br>more tracks cost less<br>10(p) (less)<br>(costs) (£)11.1(0)<br>B1<br>Ticks the box<br>The total cost is <b>less</b> than my answer to part (a) |
|      | <b>Alternative method 2 – answer in (a) incorrect and used for comparison</b>                                                                              |      |                                                                                                                                                                           |
|      | Ticks the box for the correct decision for comparison with their answer in part (a)<br>and<br>correct reason from comparison with their answer in part (a) | B2ft | B1ft<br>Ticks the box for the correct decision for comparison with their answer in part (a)                                                                               |

| 6(b)<br>cont | Additional Guidance                                                                                                                                  |  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|              | Condone irrelevant statements with a correct reason                                                                                                  |  |
|              | Do not accept an incorrect reason with a correct reason                                                                                              |  |
|              | Examples of correct reasons                                                                                                                          |  |
|              | $6 \times 0.85 = 5.1$ , $8 \times 0.75 = 6$ , $6 + 5.1 = 11.1$                                                                                       |  |
|              | $+ 30p - 40p$                                                                                                                                        |  |
|              | 2 tracks less by 5p means 10p                                                                                                                        |  |
|              | 8 is more than 6 and cancels the 6 5ps added as 8 5ps taken away                                                                                     |  |
|              | Only 6 tracks cost 5p more on each and 8 tracks cost 5p less on each, so the 8 tracks that are less take away the extra money you pay for 6          |  |
|              | The cost of 8 tracks is less by 5p each, but the cost of 6 tracks is more by 5p, this means that everything cancels apart from 2 of the 8 tracks     |  |
|              | The first 6 are 5p more, the last 8 are 5p less this means it is cheaper                                                                             |  |
|              | You are taking 5p off more tracks than you are adding 5p                                                                                             |  |
|              | Cost is less as adding 5p on only 6 but taking away 5p on 8                                                                                          |  |
|              | 8 less by 5p, 6 more by 5p, 8 is more than 6                                                                                                         |  |
|              | Examples of incorrect reasons                                                                                                                        |  |
|              | As 6 tracks are 5p more on each but 8 tracks are 5p less on each (no reference to 8 being greater than 6)                                            |  |
|              | 8 tracks is more than 6 tracks (no reference to cost)                                                                                                |  |
|              | Because $8 - 6 = 2$ so therefore there are 2 less (no reference to cost)                                                                             |  |
|              | Because 8 tracks is less by 5p so 16 will be less by 10p                                                                                             |  |
|              | If the tracks are cheaper then the total price will be cheaper (referring to the cost of all 14 tracks being 5p cheaper)                             |  |
|              | The more tracks, the less money each is worth by 5p each (referring to the cost of all 14 tracks being 5p cheaper)                                   |  |
|              | Because there are more than 8 tracks on B so it's less because it's 5p less for each track (referring to the cost of all 14 tracks being 5p cheaper) |  |

## Q3. (2019)

| 8 | Alternative method 1                                                                                                                                                                                                  |       |                                                                                                                                                                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Subtracts 17, 34, 51 or 68 from 84<br>or<br>subtracts any multiple of 3 from 84<br>or<br>subtracts any three equal positive whole numbers from 84                                                                     | M1    | implied by 67, 50, 33 or 16<br>or implied by a multiple of 17 plus three positive whole numbers that sum to 84<br>or implied by a multiple of 3 and another positive whole number that sum to 84<br>or implied by four positive whole numbers, three of which are equal, that sum to 84 |
|   | Subtracts 17, 34, 51 or 68 from 84 and then divides by 3<br>or<br>subtracts any multiple of 3 from 84 and then divides by 17<br>or<br>subtracts any three equal positive whole numbers from 84 and then divides by 17 | M1dep | implied by 22.3(...), 16.6(...) or 16.7, 11 or 5.3(...)                                                                                                                                                                                                                                 |
|   | 51, 11, 11, 11                                                                                                                                                                                                        | A1    | any order                                                                                                                                                                                                                                                                               |
|   | Alternative method 2                                                                                                                                                                                                  |       |                                                                                                                                                                                                                                                                                         |
|   | A correctly evaluated trial using addition of a multiple of 17 and three equal positive whole numbers<br>or<br>addition of a multiple of 17 and a multiple of 3                                                       | M1    |                                                                                                                                                                                                                                                                                         |
|   | A different correctly evaluated trial using addition of a multiple of 17 and three equal positive whole numbers<br>or<br>addition of a multiple of 17 and a multiple of 3                                             | M1dep |                                                                                                                                                                                                                                                                                         |
|   | 51, 11, 11, 11                                                                                                                                                                                                        | A1    | any order                                                                                                                                                                                                                                                                               |

| 8 cont | Additional Guidance                                                                                           |        |
|--------|---------------------------------------------------------------------------------------------------------------|--------|
|        | Answer of 51 and 11 with indication of three 11s in working                                                   | M1M1A1 |
|        | Answer line blank with 51 and three 11s indicated as their four numbers                                       | M1M1A1 |
|        | Answer line blank with 51 and three 11s in working                                                            | M1M1A0 |
|        | Answer of 51 and 11 with no indication of three 11s in working                                                | M1M1A0 |
|        | 34, 20, 20, 10 implies first method mark as a multiple of 17 plus three positive whole numbers that sum to 84 | M1M0   |

## Q4. (2019)

| 9 | 116(.00) | B4 | B3<br>$3 \times 34.5(0) + 12.5(0)$<br>or 118.25<br>or 119<br>or 122<br>or 121.25<br><br>B2<br>$58.75 + 34.5(0) + 2 \times 12.5(0)$<br>or $2 \times 34.5(0) + 4 \times 12.5(0)$<br>or $34.5(0) + 7 \times 12.5(0)$<br>or $58.75 + 5 \times 12.5(0)$<br><br>B1<br>$10 \times 12.5(0)$ or 125<br>or $2 \times 58.75$ or 117.5(0)<br>or $34.5(0) \div 3$ or 11.5(0)<br>or $58.75 \div 5$ or 11.75 |
|---|----------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |          |    | Additional Guidance                                                                                                                                                                                                                                                                                                                                                                           |
|   |          |    | 116(.00) identified as answer                                                                                                                                                                                                                                                                                                                                                                 |
|   |          |    | 116 in working with different answer                                                                                                                                                                                                                                                                                                                                                          |
|   |          |    | 116.0                                                                                                                                                                                                                                                                                                                                                                                         |
|   |          |    | Answer of 117.5(0) with 122 in working                                                                                                                                                                                                                                                                                                                                                        |

## Q5. (2020)

## (A)

| Q    | Answer                                                                                                     | Mark | Comments |
|------|------------------------------------------------------------------------------------------------------------|------|----------|
| 5(a) | 35 × 8<br>or<br>38 × 5                                                                                     | B1   |          |
|      | Additional Guidance                                                                                        |      |          |
|      | Ignore any answer to their calculation                                                                     |      |          |
|      | Accept a correct response alone or selected in the working space if the answer box is blank or crossed out |      |          |

## (B)

| Q    | Answer                                                                                                     | Mark | Comments |
|------|------------------------------------------------------------------------------------------------------------|------|----------|
| 5(b) | $5 \times 3 - 8$<br>or<br>$3 \times 5 - 8$                                                                 | B1   |          |
|      | Additional Guidance                                                                                        |      |          |
|      | Ignore any answer to their calculation                                                                     |      |          |
|      | Accept a correct response alone or selected in the working space if the answer box is blank or crossed out |      |          |

(C)

| Q    | Answer                                                                                                     | Mark | Comments |
|------|------------------------------------------------------------------------------------------------------------|------|----------|
| 5(c) | $\frac{6+5}{8+3} = 1$<br><br>or<br>$\frac{6+5}{3+8} = 1$                                                   | B1   |          |
|      | Additional Guidance                                                                                        |      |          |
|      | Accept a correct response alone or selected in the working space if the answer box is blank or crossed out |      |          |

Q6. (2020)

| Q  | Answer                                                                                                 | Mark  | Comments                                        |
|----|--------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------|
| 13 | <b>Alternative method 1</b>                                                                            |       |                                                 |
|    | 2.8(0) ÷ 0.2(0) or 14                                                                                  | M1    | oe eg 280 ÷ 20                                  |
|    | their 14 × 0.5(0) or 7(.00)<br>or<br>their 14 × (0.5(0) + 0.2(0))<br>or<br>their 14 × 0.7(0)<br>or 9.8 | M1dep | oe<br>eg 14 × 50 or 700<br>or<br>14 × 70 or 980 |
|    | 9.80                                                                                                   | A1    |                                                 |
|    | <b>Alternative method 2</b>                                                                            |       |                                                 |
|    | 50 ÷ 20 or 2.5                                                                                         | M1    | oe                                              |
|    | their 2.5 × 2.8(0) or 7(.00)<br>or<br>(1 + their 2.5) × 2.8(0)<br>or 9.8                               | M1dep | oe eg their 2.5 × 280 or 700<br>or 980          |
|    | 9.80                                                                                                   | A1    |                                                 |

Q7. (2021)

| Q | Answer  | Mark | Comments |
|---|---------|------|----------|
| 1 | $x = 8$ | B1   |          |

Q8. (2023)

| Q | Answer                                                                                                                                        | Mark  | Comments                                                                                |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------|
| 7 | 25 × 10.2(0) or 255                                                                                                                           | M1    | oe                                                                                      |
|   | 10 − 7 + 3 − 1 or 3 + 2 or 5<br>or<br>(10 − 7) × 11.8(0) or 3 × 11.8(0)<br>or 35.4(0)<br>or<br>(3 − 1) × 11.8(0) or 2 × 11.8(0)<br>or 23.6(0) | M1    | oe                                                                                      |
|   | their 5 × 11.8(0)<br>or their 35.4(0) + their 23.6(0)<br>or 59                                                                                | M1dep | oe<br>dep on 2nd M<br>their 35.4(0) and their 23.6(0) must both be from correct methods |
|   | 314(.00)                                                                                                                                      | A1    | SC2 325.8(0) or 337.6(0)                                                                |
|   | <b>Additional Guidance</b>                                                                                                                    |       |                                                                                         |
|   | 314.0                                                                                                                                         |       | M3A0                                                                                    |

Q9. (2023)

| Q  | Answer                                                                                                                       | Mark  | Comments                             |
|----|------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------|
| 15 | $496 \div 8$ or 62                                                                                                           | M1    | oe eg $8 \times 62$                  |
|    | $5 \times$ their 62 or 310                                                                                                   | M1dep | oe<br>$496 \times \frac{5}{8}$ is M2 |
|    | $638 -$ their 310 or 328<br>or<br>$(638 - \text{their } 310) \div 2$                                                         | M1dep | oe<br>dep on M2                      |
|    | 164                                                                                                                          | A1    |                                      |
|    | <b>Additional Guidance</b>                                                                                                   |       |                                      |
|    | Up to M3 may be awarded for correct work, with no answer or incorrect answer, even if this is seen amongst multiple attempts |       |                                      |

## Q10. (2024)

| Q | Answer                                                                                                     | Mark | Comments                                                                                                                                                                                                 |  |
|---|------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 4 | 50p 10p 10p 1p                                                                                             | B2   | any order<br>units required for each coin<br>B1 50 10 10 1 in any order without all units<br>or<br>set of valid coins that make 71p (with correct units or without units)<br>eg 10 1 20 20 20 or 50 20 1 |  |
|   | <b>Additional Guidance</b>                                                                                 |      |                                                                                                                                                                                                          |  |
|   | Units may be seen in the working but missing on the answer line for B2                                     |      |                                                                                                                                                                                                          |  |
|   | 50p 10p 10p 1p in working with answer 0.50p 0.10p 0.10p 0.01p                                              |      | B1                                                                                                                                                                                                       |  |
|   | Accept £0.50, condone £0.50p                                                                               |      |                                                                                                                                                                                                          |  |
|   | Units of the form 0.50p are incorrect                                                                      |      |                                                                                                                                                                                                          |  |
|   | If all four coins are in a consistent form to show 50 10 10 1<br>eg 0.50p 0.10p 0.10p 0.01p condone for B1 |      |                                                                                                                                                                                                          |  |