

## Bronze

1a. 3, 6, 7.5

2a. 1.4, 1.6, 1.8 (Rule = + 0.2)  
2.7, 3.2, 3.7 (Rule = + 0.5)  
0.9, 1.03, 1.16 (Rule = + 0.13)

3a. 2.48, 2.66, 2.84

4a. The rule is - 0.1

1b. Lily and Adelina are both incorrect. The rule is - 0.55. Adelina had the correct operation but wrong amount, Lily had the correct amount but wrong operation.

2b. Various possible answers, including: Difference is 2. The second sequence will appear later in the first sequence.

3b.

| 2016  | 2017  | 2018  |
|-------|-------|-------|
| £1.94 | £2.10 | £2.26 |
| £3.65 | £3.81 | £3.97 |

2020: £2.58, £4.29

## Silver

5a. 1.02, 0.82, 0.72, 0.62

6a. 2.645, 2.668, 2.691 (Rule = + 0.023)  
0.84, 0.81, 0.78 (Rule = - 0.03)  
0.857, 0.85, 0.843 (Rule = - 0.007)

7a. 0.69, 1.61, 2.99

8a. The rule is + 0.03

4b. Both Jon and Rhianna are correct. The rule is - 0.99; as a subtraction the terms will decrease and reach 2.04.

5b. Various possible answers, including: Differences: 1.778, 3.556, 5.334. The differences create their own sequence of + 1.778.

6b.

| 2016   | 2017    | 2018    |
|--------|---------|---------|
| £4.95m | £4.718m | £4.486m |
| £9.03m | £8.798m | £8.566  |

2022: £3.558, £7.638

## Gold

9a. 7.551, 7.671, 7.731

10a. 0.05, 0.043, 0.036 (Rule = - 0.007)  
12.272, 12.24, 12.208 (Rule = - 0.032)  
2.043, 2.643, 3.343 (Rule = the difference increases by 0.1 each term).

11a. 4.265, -1.535, -7.335

12a. The rule is + 0.008

7b. Lou is correct. The rule is + 0.655, as the thousandths column is always 5 or 0 the answer will never be more than 3 decimal places.

8b. Example answers: Differences: - 2.231, - 1.331, + 0.469. Number of possible interpretations, for example: first sequence rule is + 0.1; second sequence rule is the difference between terms increases by 1 each time.

The next two terms are 4.631 and 8.

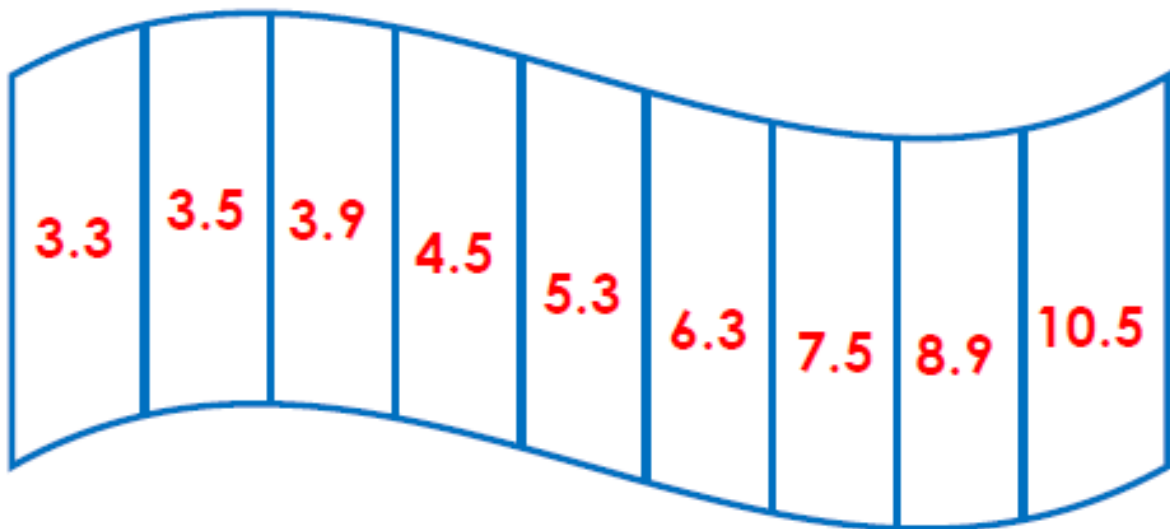
9b.

| 2016    | 2017    | 2018    | 2019    |
|---------|---------|---------|---------|
| £6.933m | £6.944m | £6.966m | £6.999m |
| £7.772m | £7.783m | £7.805m | £7.838m |

2025: £7.428m, £8.267m

### Challenge

1. The numbers below are part of a 9 term sequence. Find the rule and include the numbers to complete the sequence.



The rule is that the difference between the numbers increases by 0.2 each time.

2. Explore different rules that could fit with the given term below. The difference between the terms must decrease each time.

Various possible answers, for example:

The rule is that the difference between the numbers decreases by 0.1 each time

