Year 8 Sequences, Functions and Graphs – Foundation

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Answers and worked solutions · 10 questions

A. Sequence and function skills

1. **7n + 7**

Difference 7, so the rule starts 7n

When n = 1, 7n = 7 and the first term is 14: 7n + 7

2. **6n + 9**

Difference 6, so the rule starts 6n

When n = 1, 6n = 6 and the first term is 15: 6n + 9

3. **2.5, 2, 1.5, 1**

n = 1: 2.5; n = 2: 2

n = 3: 1.5; n = 4: 1

4. **5, 3, 1, −1**

n = 1: 5; n = 2: 3

n = 3: 1; n = 4: −1

5. **add 3/4; 4, 4 3/4**

The difference between terms is 3/4

3 1/4 + 3/4 = 4, then 4 3/4

6. **add 1/6; 2/3, 5/6**

The difference between terms is 1/6

1/2 + 1/6 = 2/3, then 5/6

7. **9**

6 × 1/2 = 3

3 + 6 = 9

8. **10**

Undo + 4: 29 − 4 = 25

Undo × 5/2: 25 × 2/5 = 10

9. **gradient 1, y-intercept −6**

Compare with y = mx + c: m = 1, c = −6

10. **gradient −2, y-intercept −6**

Compare with y = mx + c: m = −2, c = −6