# 3.16-2 Number Series: Practice Set 2: 10-minute Pack

Total Marks

GL ASSESSMENT GL VR type 16 · about 10 minutes

Name: _____ Date: ____ / ____ / _____

**Each question in this set shows a series of numbers with a question mark standing in for the missing number. Look carefully at the numbers you are given and work out the rule connecting them: it could be a fixed amount added or taken away each time, a fixed multiplier or divisor, a gap between the numbers that grows or shrinks by a steady amount, two separate series running through the same list one term at a time, or a rule that builds each number from the two numbers just before it. Once you have spotted the rule, pick the option, A to E, that carries the series on correctly. Exactly one option fits in each question; the other four are built around mistakes that are easy to make, such as using the wrong step size, stopping a growing gap one step too soon, or losing track of which of two interleaved series you are following. Look at the worked example first, then answer the questions in order - they begin gently and become more demanding as the set goes on.**

**Worked example.** 3, 7, 11, 15, 19, ? A) 20 B) 21 C) 22 D) 23 E) 25 **Answer: D) 23.** Each number in the series is 4 more than the number before it (add 4 each time): 3, 7, 11, 15, 19. So the next number after 19 is 19 + 4 = 23, which is option D. Option A (20) adds only 1; option B (21) adds 2; option C (22) adds 3; option E (25) adds 6, overshooting the true difference.

**1** Find the next number in this series.

80, 75, 67, 56, 42, ?

- ☐ A) 25
- ☐ B) 26
- ☐ C) 28
- ☐ D) 30
- ☐ E) 32


© Revision Library | revisionlibrary.co.uk

**2** Find the next number in this series.

4, 5, 9, 14, 23, 37, ?

- ☐ A) 46
- ☐ B) 58
- ☐ C) 60
- ☐ D) 61
- ☐ E) 74

---

**3** Find the next number in this series.

8, 13, 10, 15, 12, 17, ?

- ☐ A) 12
- ☐ B) 14
- ☐ C) 15
- ☐ D) 20
- ☐ E) 22

---

**4** Find the next number in this series.

4, 50, 9, 44, 14, 38, ?

- ☐ A) 13
- ☐ B) 18
- ☐ C) 19
- ☐ D) 20
- ☐ E) 32

---

**5** Find the next number in this series.

6, 90, 12, 80, 24, 70, ?

- ☐ A) 36
- ☐ B) 46
- ☐ C) 48
- ☐ D) 60
- ☐ E) 96


© Revision Library | revisionlibrary.co.uk

**6** Find the next number in this series.

3, 8, 18, 38, 78, ?

- ☐ A) 118
- ☐ B) 156
- ☐ C) 157
- ☐ D) 158
- ☐ E) 160

---

**7** Find the next number in this series.

10, 17, 31, 59, 115, ?

- ☐ A) 171
- ☐ B) 224
- ☐ C) 225
- ☐ D) 226
- ☐ E) 227

---

**8** Find the next number in this series.

4, 7, 13, 25, 49, ?

- ☐ A) 61
- ☐ B) 73
- ☐ C) 93
- ☐ D) 97
- ☐ E) 101

---

**9** Find the next number in this series.

1024, 256, 64, 16, ?

- ☐ A) 4
- ☐ B) 6
- ☐ C) 8
- ☐ D) 12
- ☐ E) 16


© Revision Library | revisionlibrary.co.uk

**10** Find the next number in this series.

10, 12, 17, 20, 22, 27, ?

- ☐ A) 29
- ☐ B) 30
- ☐ C) 31
- ☐ D) 32
- ☐ E) 33

---

**11** Find the next number in this series.

90, 60, 86, 53, 82, 46, ?

- ☐ A) 39
- ☐ B) 75
- ☐ C) 76
- ☐ D) 77
- ☐ E) 78

---

**12** Find the next number in this series.

6, 15, 24, 33, 42, ?

- ☐ A) 49
- ☐ B) 50
- ☐ C) 51
- ☐ D) 52
- ☐ E) 53

---

**13** Find the next number in this series.

1, 3, 6, 10, 15, ?

- ☐ A) 18
- ☐ B) 19
- ☐ C) 20
- ☐ D) 21
- ☐ E) 22


© Revision Library | revisionlibrary.co.uk

# Mark scheme · 3.16-2 Number Series: Practice Set 2: 10-minute Pack

## Question 1

A) 25 - the amount subtracted increases by 3 each time (5, 8, 11, 14, 17), so 42-17=25 **B1**

**Answer: A) 25**

## Question 2

C) 60 - each term is the sum of the two before it (4, 5, 9, 14, 23, 37, 60) **B1**

**Answer: C) 60**

## Question 3

B) 14 - the pattern alternates +5 then -3 (8, 13, 10, 15, 12, 17, 14), so 17-3=14 **B1**

**Answer: B) 14**

## Question 4

C) 19 - two series are woven together: one adding 5 each time (4, 9, 14, ?) and one subtracting 6 each time (50, 44, 38); the next term continues the first series to give 19 **B1**

**Answer: C) 19**

## Question 5

C) 48 - two series are woven together: one doubling each time (6, 12, 24, ?) and one subtracting 10 each time (90, 80, 70); the next term continues the first series to give 48 **B1**

**Answer: C) 48**

## Question 6

D) 158 - each term is double the previous term, plus 2 (3, 8, 18, 38, 78, 158) **B1**

**Answer: D) 158**

## Question 7

E) 227 - each term is double the previous term, minus 3 (10, 17, 31, 59, 115, 227) **B1**

**Answer: E) 227**

## Question 8

D) 97 - the difference between terms doubles each time (3, 6, 12, 24, 48), so 49+48=97 **B1**

**Answer: D) 97**

## Question 9

A) 4 - each term is divided by 4 (1024, 256, 64, 16, 4) **B1**

**Answer: A) 4**

## Question 10

B) 30 - the additions repeat in a cycle of +2, +5, +3 (10, 12, 17, 20, 22, 27, 30), so 27+3=30 **B1**

**Answer: B) 30**

## Question 11

E) 78 - two series are woven together: one subtracting 4 each time (90, 86, 82, ?) and one subtracting 7 each time (60, 53, 46); the next term continues the first series to give 78 **B1**

**Answer: E) 78**

## Question 12

C) 51 - each term increases by 9 (6, 15, 24, 33, 42, 51) **B1**

**Answer: C) 51**

## Question 13

D) 21 - the amount added increases by 1 each time (+2, +3, +4, +5, +6), so 15+6=21 **B1**

**Answer: D) 21**


© Revision Library | revisionlibrary.co.uk