9-2 Standardized Test Prep

Arithmetic Sequences

Multiple Choice

For Exercises 1–6, choose the correct letter.

1. Which sequence is an arithmetic sequence?

 Ⓐ 7, 10, 13, 16, 19, . . .   Ⓒ 7, 14, 28, 56, 112, . . .

 Ⓑ 7, 8, 10, 13, 17, . . .   Ⓓ 1, 7, 14, 22, 31, 41, . . .

2. An arithmetic sequence begins 4, 9, ... What is the 20th term?

 Ⓕ 76   Ⓖ 80   Ⓗ 84   Ⓘ 99

3. What are the missing terms of the arithmetic sequence 5, __, __, 62, . . . ?

 Ⓐ 19, 24   Ⓑ 19, 34   Ⓒ 24, 43   Ⓓ 43, 62

4. What is the missing term of the arithmetic sequence 25, __, 45, . . . ?

 Ⓕ 30   Ⓖ 35   Ⓗ 37   Ⓘ 40

5. The seventh and ninth terms of an arithmetic sequence are 197 and 173. What is the eighth term?

 Ⓐ 161   Ⓑ 180   Ⓒ 185   Ⓓ 221

6. An artist is creating a tile mosaic. She uses 4 green tiles in the first row, 11 green tiles in the second row, 18 green tiles in the third row, and 25 green tiles in the fourth row. If she continues the pattern, how many green tiles will she use in the 20th row?

 Ⓕ 32   Ⓖ 58   Ⓗ 134   Ⓘ 137

Extended Response

7. What is the 100th term in the arithmetic sequence beginning with 3, 19, . . . ? Show your work.