***Coding Practice with   
 Algebraic Expressions* Answers**

**Algebra**

**Unit 1 Line Master 4c**

1. Match the code on the left to the correct output on the right.   
Then describe the output.

|  |  |
| --- | --- |
| **Code** | **Output** |
| a) Matches Output A, B, or C? (circle one)  for i in range (1,5):  termNumber = i  termValue = 5 \* termNumber  print (termNumber, '\t', termValue)  What is the numerical coefficient, or multiplier? **5**  What is the constant? **No constant**  What is the algebraic expression? **5*n*** | |  |  | | --- | --- | | **0** | **1** | | **1** | **4** | | **2** | **7** | | **3** | **10** | | **4** | **13** | | **5** | **16** | | **6** | **19** | | **7** | **22** | | **8** | **25** | | **9** | **28** |   **A** |
| b) Matches Output A, B, or C? (circle one)  for i in range (0,5):  termNumber = i  termValue = 5 \* termNumber + 2  print (termNumber, '\t', termValue)  What is the numerical coefficient, or multiplier? **5**  What is the constant? **2**  What is the algebraic expression? **5*n* + 2** | **B**   |  |  | | --- | --- | | **1** | **5** | | **2** | **10** | | **3** | **15** | | **4** | **20** | |
| c) Matches Output A, B, or C? (circle one)  for i in range (0,10):  termNumber = i  termValue = 3 \* termNumber + 1  print (termNumber, '\t', termValue)  What is the numerical coefficient, or multiplier? **3**  What is the constant? **1**  What is the algebraic expression? **3*n* + 1** | **C**   |  |  | | --- | --- | | **0** | **2** | | **1** | **7** | | **2** | **12** | | **3** | **17** | | **4** | **22** | |

***Coding Practice with   
 Algebraic Expressions* Answers** (cont’d)

**Algebra**

**Unit 1 Line Master 4d**

2. This code produces the output shown.

|  |  |
| --- | --- |
| **Code** | **Output** |
| for i in range (1,11):  termNumber = i  termValue = 4 \* termNumber + 1  print (termNumber, '\t', termValue) | |  |  | | --- | --- | | **1** | **5** | | **2** | **9** | | **3** | **13** | | **4** | **17** | | **5** | **21** | | **6** | **25** | | **7** | **29** | | **8** | **33** | | **9** | **37** | | **10** | **41** | |

How would you alter the code to generate this output?

**Altered Code**

for i in range (1,11):

termNumber = i

termValue = 7 \* termNumber + 1

print (termNumber, '\t', termValue)

|  |  |
| --- | --- |
| **1** | **8** |
| **2** | **15** |
| **3** | **22** |
| **4** | **29** |
| **5** | **36** |
| **6** | **43** |
| **7** | **50** |
| **8** | **57** |
| **9** | **64** |
| **10** | **71** |

3. Predict the output when this code is executed.

**Code:**

for i in range (0,11):

termNumber = i

termValue = 10 \* termNumber + 3

print (termNumber, '\t', termValue)

***Coding Practice with   
 Algebraic Expressions* Answers** (cont’d)

**Algebra**

**Unit 1 Line Master 4e**

**Sample Output**

|  |  |
| --- | --- |
| **0** | **3** |
| **1** | **13** |
| **2** | **23** |
| **3** | **33** |
| **4** | **43** |
| **5** | **53** |
| **6** | **63** |
| **7** | **73** |
| **8** | **83** |
| **9** | **93** |
| **10** | **103** |