Name_____   Date_____

Algebra Unit 1 Line Master 4c

Coding Practice with Algebraic Expressions Answers

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)	**A**	0	1

``
for i in range (1,5):
  termNumber = i
  termValue = 5 * termNumber
  print (termNumber, '\t', termValue)
``
		1	4

		2	7
		3	10
		4	13
What is the numerical coefficient, or multiplier? **5**		5	16
What is the constant? **No constant**		6	19
		7	22
What is the algebraic expression? **5n**		8	25
		9	28
b) Matches Output A, B, or (C)? (circle one)	**B**	1	5

``
for i in range (0,5):
  termNumber = i
  termValue = 5 * termNumber + 2
  print (termNumber, '\t', termValue)
``
		2	10

		3	15
		4	20
What is the numerical coefficient, or multiplier? **5**			
What is the constant? **2**			
What is the algebraic expression? **5n + 2**			
c) Matches Output (A) B, or C? (circle one)	**C**	0	2

``
for i in range (0,10):
  termNumber = i
  termValue = 3 * termNumber + 1
  print (termNumber, '\t', termValue)
``
		1	7

		2	12
		3	17
What is the numerical coefficient, or multiplier? **3**		4	22
What is the constant? **1**			
What is the algebraic expression? **3n + 1**			

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

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?

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

Altered Code

```
for i in range (1,11):
    termNumber = i
    termValue = 7 * termNumber + 1
    print (termNumber, '\t', termValue)
```

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)
```

**Algebra
Unit 1 Line Master 4e**

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

Sample Output

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