

Algebra
Unit 1 Line Master 4a

**Coding Practice with
Algebraic Expressions**

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

Code	Output																				
<p>a) Matches Output A, B, or C? (circle one)</p> <pre>for i in range (1,5): termNumber = i termValue = 5 * termNumber print (termNumber, '\t', termValue)</pre> <p>What is the numerical coefficient, or multiplier?</p> <p>What is the constant?</p> <p>What is the algebraic expression?</p>	<p>A</p> <table> <tr><td>0</td><td>1</td></tr> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>7</td></tr> <tr><td>3</td><td>10</td></tr> <tr><td>4</td><td>13</td></tr> <tr><td>5</td><td>16</td></tr> <tr><td>6</td><td>19</td></tr> <tr><td>7</td><td>22</td></tr> <tr><td>8</td><td>25</td></tr> <tr><td>9</td><td>28</td></tr> </table>	0	1	1	4	2	7	3	10	4	13	5	16	6	19	7	22	8	25	9	28
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4	13																				
5	16																				
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9	28																				
<p>b) Matches Output A, B, or C? (circle one)</p> <pre>for i in range (0,5): termNumber = i termValue = 5 * termNumber + 2 print (termNumber, '\t', termValue)</pre> <p>What is the numerical coefficient, or multiplier?</p> <p>What is the constant?</p> <p>What is the algebraic expression?</p>	<p>B</p> <table> <tr><td>1</td><td>5</td></tr> <tr><td>2</td><td>10</td></tr> <tr><td>3</td><td>15</td></tr> <tr><td>4</td><td>20</td></tr> </table>	1	5	2	10	3	15	4	20												
1	5																				
2	10																				
3	15																				
4	20																				
<p>c) Matches Output A, B, or C? (circle one)</p> <pre>for i in range (0,10): termNumber = i termValue = 3 * termNumber + 1 print (termNumber, '\t', termValue)</pre> <p>What is the numerical coefficient, or multiplier?</p> <p>What is the constant?</p> <p>What is the algebraic expression?</p>	<p>C</p> <table> <tr><td>0</td><td>2</td></tr> <tr><td>1</td><td>7</td></tr> <tr><td>2</td><td>12</td></tr> <tr><td>3</td><td>17</td></tr> <tr><td>4</td><td>22</td></tr> </table>	0	2	1	7	2	12	3	17	4	22										
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Algebra
Unit 1 Line Master 4b**Coding Practice with**
Algebraic Expressions (cont'd)

2. This code produces the output shown.

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

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)
```