

## Unit 5 Assessment and Reflection Links

Unit 5 Vocab Review	<a href="https://create.kahoot.it/share/firia-labs-unit-5-vocab-review/c1a8d0f2-22fe-4b5e-83a6-4df2f2de884b">https://create.kahoot.it/share/firia-labs-unit-5-vocab-review/c1a8d0f2-22fe-4b5e-83a6-4df2f2de884b</a>
Unit 5 Coding and Concepts Review	<a href="https://create.kahoot.it/share/firia-labs-unit-5-coding-review/222d7e7f-0624-46ac-96d9-65f17e7c1556">https://create.kahoot.it/share/firia-labs-unit-5-coding-review/222d7e7f-0624-46ac-96d9-65f17e7c1556</a>
Unit 5 Vocabulary Test (MS Form)	<a href="https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpURFpTS1ZaRFZPRkiUNVhFNzE0WkZPVFczOC4u&amp;sharetoken=IHE2JJDBHT7qJ5A6KoRY">https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpURFpTS1ZaRFZPRkiUNVhFNzE0WkZPVFczOC4u&amp;sharetoken=IHE2JJDBHT7qJ5A6KoRY</a>
Unit 5 Coding and Concepts Test (MS Form)	<a href="https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpURjBISVM2REEzT1U3Q1VYMU1MNEI2TE9BNi4u&amp;sharetoken=1ccrvgfipaPoDhT2w8Rr">https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpURjBISVM2REEzT1U3Q1VYMU1MNEI2TE9BNi4u&amp;sharetoken=1ccrvgfipaPoDhT2w8Rr</a>
Daily reflection form for final project	<a href="https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpUNDU0STM4OFc5Q01IS00xUkxNV0NjNVZZNy4u&amp;sharetoken=1u1myDCFDLm36Vzrsslb">https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_SjBvJpUNDU0STM4OFc5Q01IS00xUkxNV0NjNVZZNy4u&amp;sharetoken=1u1myDCFDLm36Vzrsslb</a>

## Unit 5 Vocab Review

Physics engine	<ul style="list-style-type: none"> <li>a) User experience</li> <li>b) A device that uses the mechanics of velocity, distance and time</li> <li>c) To set the initial or first values of global variables</li> <li>d) A model or early sample of a concept</li> </ul>
Prototype	<ul style="list-style-type: none"> <li>a) User experience</li> <li>b) A device that uses the mechanics of velocity, distance and time</li> <li>c) Set the initial or first value of global variables</li> <li>d) A model or early sample of a concept</li> </ul>
UX	<ul style="list-style-type: none"> <li>a) User experience</li> <li>b) A device that uses the mechanics of velocity, distance and time</li> <li>c) Set the initial or first value of global variables</li> <li>d) A model or early sample of a concept</li> </ul>
Initialization	<ul style="list-style-type: none"> <li>a) User experience</li> <li>b) A device that uses the mechanics of velocity, distance and time</li> <li>c) Set the initial or first value of global variables</li> <li>d) A model or early sample of a concept</li> </ul>

Delta time	<ul style="list-style-type: none"> <li>a) A structure with rows and columns</li> <li>b) Jump back to the top of loop</li> <li>c) Flip the value of a Boolean variable using “not”</li> <li>d) Elapsed time, or change in time</li> </ul>
Matrix	<ul style="list-style-type: none"> <li>a) A structure with rows and columns</li> <li>b) Jump back to the top of loop</li> <li>c) Flip the value of a Boolean variable using “not”</li> <li>d) Elapsed time, or change in time</li> </ul>
Continue	<ul style="list-style-type: none"> <li>a) A structure with rows and columns</li> <li>b) Jump back to the top of loop</li> <li>c) Flip the value of a Boolean variable using “not”</li> <li>d) Elapsed time, or change in time</li> </ul>
Toggle	<ul style="list-style-type: none"> <li>a) A structure with rows and columns</li> <li>b) Jump back to the top of loop</li> <li>c) Flip the value of a Boolean variable using “not”</li> <li>d) Elapsed time, or change in time</li> </ul>

**Unit 5 Coding and Concepts Review (from Mission 15 and Mission 16 quizzes)**

How many milliseconds are in 1 second?	<ul style="list-style-type: none"> <li>a) 0.001</li> <li>b) 1000</li> <li>c) 100</li> <li>d) 1 million</li> </ul>
If the breakout ball moves at a velocity of $\frac{1}{2}$ pixel per millisecond, how far would it move in 10 milliseconds?	<ul style="list-style-type: none"> <li>a) 50 pixels</li> <li>b) 10 pixels</li> <li>c) 5 pixels</li> <li>d) 20 pixels</li> </ul>
Where are global variables initialized in the final breakout program?	<ul style="list-style-type: none"> <li>a) Only at the top of the code</li> <li>b) Only inside a function</li> <li>c) Some at the top of the code, and some inside a function</li> <li>d) Only just above the while True loop of the main program</li> </ul>
What do the letters D T stand for in the variable “dt”?	<ul style="list-style-type: none"> <li>a) Do testing</li> <li>b) Delta time</li> <li>c) Difference time</li> <li>d) Data test</li> </ul>
What is the final value of dt after the code runs?	<ul style="list-style-type: none"> <li>a) Error: no target for assignment</li> <li>b) 10</li> <li>c) 40</li> <li>d) 42</li> </ul>

<pre>elapsed_ms() time.sleep_ms(42) dt = elapsed_ms()</pre>	
<p>How does the function “elapsed_ms()” remember the millisecond value from the last time it was called?</p>	<ul style="list-style-type: none"> <li>a) Computers don't remember</li> <li>b) All variables inside a function can remember values</li> <li>c) It uses a global variable “ms”</li> <li>d) It uses a local variable “ms”</li> </ul>
<p>Which comparison is FALSE?</p>	<ul style="list-style-type: none"> <li>a) (1, 2, 3) == (3, 2, 1)</li> <li>b) (1, 2, 3) == (1, 2, 3)</li> <li>c) (“right”, “on”) == (“right”, “on”)</li> <li>d) 5 &gt;= 5</li> </ul>
<p>What is the purpose of the variable “sound_cut”?</p>	<ul style="list-style-type: none"> <li>a) To count up the seconds until the sound stops</li> <li>b) To count down the milliseconds until the sound stops</li> <li>c) The frequency to cut off the sound</li> <li>d) A counter in seconds for the sound timer</li> </ul>
<p>What is the final value of:</p> <pre>max(min(3, 2), 1)</pre>	<ul style="list-style-type: none"> <li>a) 3</li> <li>b) 4</li> <li>c) 1</li> <li>d) 2</li> </ul>
<p>What is the initial value of “count”?</p> <pre>count = 0 x = 0 while x &lt; 5:     x = x + 1     if x == 2:         continue     count = count + 1 print(count, x)</pre>	<ul style="list-style-type: none"> <li>a) 3</li> <li>b) 4</li> <li>c) 5</li> <li>d) 0</li> </ul>
<p>What is the final value of “count”?</p>	<ul style="list-style-type: none"> <li>a) 3</li> <li>b) 4</li> <li>c) 5</li> </ul>

```
count = 0
x = 0
while x < 5:
    x = x + 1
    if x == 2:
        continue
    count = count + 1

print(count, x)
```

d) 0

What is the final value of "x"?

```
count = 0
x = 0
while x < 5:
    x = x + 1
    if x == 2:
        continue
    count = count + 1

print(count, x)
```

- a) 3
- b) 4
- c) 5
- d) 0

How many rows are in the "cards" matrix?

```
cards = [
    [True, False, True],
    [True, True, True],
    [False, False, True],
    [True, False, False]
]
```

- a) 2
- b) 3
- c) 4
- d) 12

How many columns are in the "cards" matrix?

```
cards = [
    [True, False, True],
    [True, True, True],
    [False, False, True],
    [True, False, False]
]
```

- a) 2
- b) 3
- c) 4
- d) 12

<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True],     [True, True, True],     [False, False, True],     [True, False, False] ] my_card = cards[2][1]</pre>	<ul style="list-style-type: none"><li>a) True</li><li>b) False</li><li>c) [False, False, False]</li><li>d) Error - list index out of range</li></ul>
<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True],     [True, True, True],     [False, False, True],     [True, False, False] ] my_card = cards[1][3]</pre>	<ul style="list-style-type: none"><li>a) True</li><li>b) False</li><li>c) [False, False, False]</li><li>d) Error - list index out of range</li></ul>
<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True],     [True, True, True],     [False, False, True],     [True, False, False] ] my_card = not cards[0][1]</pre>	<ul style="list-style-type: none"><li>a) True</li><li>b) False</li><li>c) [False, True, False]</li><li>d) Error - list index out of range</li></ul>
<p>What is the value of "my_list" after the code runs?</p> <pre>my_list = [5, 4, 9] my_list.append(2)</pre>	<ul style="list-style-type: none"><li>a) [2, 5, 4, 9]</li><li>b) [5, 4, 9, 2]</li><li>c) [5, 4, 9], [5, 4, 9]</li><li>d) [5, 4, 9, (2)]</li></ul>
<p>What is the value of "result"?</p>	<ul style="list-style-type: none"><li>a) 12</li><li>b) 23</li></ul>

<pre>result = 4 + 2 * 3 - 1</pre>	<ul style="list-style-type: none"> <li>c) 9</li> <li>d) 17</li> </ul>
<p>What is the value of "result"?</p> <pre>result = int(3 + 5/2)</pre>	<ul style="list-style-type: none"> <li>a) 5</li> <li>b) 5.5</li> <li>c) 6</li> <li>d) TypeError</li> </ul>

### Unit 5 Coding and Concepts Exam Questions

<p>If a ball moves 2 pixels per millisecond, how far would it move in 10 milliseconds?</p>	<ul style="list-style-type: none"> <li>a) 2 pixels</li> <li>b) 5 pixels</li> <li>c) 10 pixels</li> <li>d) 20 pixels</li> </ul>
<p>Where are global variables initialized in a program?</p>	<ul style="list-style-type: none"> <li>a) Inside functions only</li> <li>b) At the top of the code only</li> <li>c) Just above the main program's "while true" loop</li> <li>d) Some at the top of the code and some inside a function</li> </ul>
<p>Which comparison is FALSE?</p>	<ul style="list-style-type: none"> <li>a) (True, False) == (True, False)</li> <li>b) 7 &lt;= 7</li> <li>c) (False, True) == (True, False)</li> <li>d) [1, 2, 3] == [1, 2, 3]</li> </ul>
<p>What is the value of result?</p> <pre>count = 3 count = count + 1 result = min(max(count, 3), 5)</pre>	<ul style="list-style-type: none"> <li>a) 1</li> <li>b) 3</li> <li>c) 4</li> <li>d) 5</li> </ul>
<p>What is the INITIAL value of "x"?</p> <pre>count = 0 x = 5 while count &lt; 4:     count = count + 1     if count == 3:         continue     x = x - 1</pre>	<ul style="list-style-type: none"> <li>a) 0</li> <li>b) 5</li> <li>c) 4</li> <li>d) 1</li> </ul>
<p>What is the FINAL value of "count"?</p>	<ul style="list-style-type: none"> <li>a) 1</li> </ul>

```
count = 0
x = 5
while count < 4:
    count = count + 1
    if count == 3:
        continue
    x = x - 1
```

- b) 2
- c) 3
- d) 4

What is the FINAL value of "x"?

```
count = 0
x = 5
while count < 4:
    count = count + 1
    if count == 3:
        continue
    x = x - 1
```

- a) 1
- b) 2
- c) 3
- d) 4

How many COLUMNS are in the "cards" matrix?

```
cards = [
    [True, False, True, True],
    [False, True, True, False],
    [False, False, True, True]
]
```

- a) 3
- b) 4
- c) 5
- d) 12

How many ROWS are in the "cards" matrix?

```
cards = [
    [True, False, True, True],
    [False, True, True, False],
    [False, False, True, True]
]
```

- a) 3
- b) 4
- c) 5
- d) 12

<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True, True],     [False, True, True, False],     [False, False, True, True] ] my_card = cards[3][3]</pre>	<ul style="list-style-type: none"> <li>a) True</li> <li>b) False</li> <li>c) [False, False, True, True]</li> <li>d) Error: list index out of range</li> </ul>
<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True, True],     [False, True, True, False],     [False, False, True, True] ] my_card = cards[2][2]</pre>	<ul style="list-style-type: none"> <li>a) True</li> <li>b) False</li> <li>c) [False, True, True, False]</li> <li>d) Error: list index out of range</li> </ul>
<p>What is the value of "my_card"?</p> <pre>cards = [     [True, False, True, True],     [False, True, True, False],     [False, False, True, True] ] my_card = not cards[1][0]</pre>	<ul style="list-style-type: none"> <li>a) True</li> <li>b) False</li> <li>c) [False, True, False, False]</li> <li>d) Error – can't use the operator "not"</li> </ul>
<p>What is the value of "my_list" after the code runs?</p> <pre>my_list = [2, 4, 6, 8] my_list.append(0)</pre>	<ul style="list-style-type: none"> <li>a) [2, 4, 6, 8], [2, 4, 6, 8]</li> <li>b) [0, 2, 4, 6, 8]</li> <li>c) [2, 4, 6, 8, 0]</li> <li>d) [2, 4, 6, 8, (0)]</li> </ul>
<p>What is the value of "result"?</p> <pre>result = 4 + 1 * 5 - 2</pre>	<ul style="list-style-type: none"> <li>a) 23</li> <li>b) 7</li> <li>c) 15</li> <li>d) 18</li> </ul>
<p>What is the value of "result"?</p> <pre>result = int(1 + 5/3)</pre>	<ul style="list-style-type: none"> <li>a) 1</li> <li>b) 2</li> <li>c) 2.33333</li> <li>d) 3</li> </ul>