Attribute Assignment (Question)

>>> p = shapes.Point3(0,0,0)
>>> q = p

• Execute the assignments:
  >>> p.x = 5
  >>> q.x = 7

• What is value of p.x?

A: 5
B: 7
C: id4
D: I don’t know
Attribute Assignment (Solution)

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• Execute the assignments:
  >>> p.x = 5
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• What is value of p.x?

A: 5
B: 7  CORRECT
C: id4
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How Many Folders (Question)

```
import shapes
p = shapes.Point3(1,2,3)
q = shapes.Point3(3,4,5)
```

Draw everything that gets created (excluding the module variable & module folder).
How many folders get drawn?
import shapes
p = shapes.Point3(1,2,3)
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How many folders get drawn?
What Else Gets Drawn? (Question)

import shapes
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Draw everything that gets created (excluding the module variable & module folder).
What else gets drawn?

Heap Space

id1
Point3
x 1
y 2
z 3

id2
Point3
x 3
y 4
z 5
import shapes

p = shapes.Point3(1, 2, 3)
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Draw everything that gets created (excluding the module variable & module folder).
What else gets drawn?
import shapes
p = shapes.Point3(1,2,3)
q = shapes.Point3(3,4,5)
def swap_x(p, q):
  t = p.x
  p.x = q.x
  q.x = t
swap_x(p, q)

What is in p.x at the end of this code?

A: 0  D: 3  CORRECT
B: 1  E: I don’t know
C: 2

Global Space
p id1
q id2

Heap Space
id1
Point3
x 1
y 2
z 3

id2
Point3
x 3
y 4
z 5
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\begin{itemize}
    \item[A:] 0 \hspace{1cm} \textbf{CORRECT}
    \item[B:] 1
    \item[C:] 2
    \item[D:] 3
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What is in global p after calling swap?

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B: id2  D: 2
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    2. p = q
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