Before we dive head first into Java, let’s consider some of the finer points of pythonic programming:

1. Convert the following if/else into a one-line return statement:

   ```python
   if mylist is not None and len(mylist) > 24:
       return True
   else:
       return False
   ```

2. Convert the following if/else statement into a one-line if statement:

   ```python
   species = None
   if name in ['pix', 'tally', 'wally']:
       species = 'dog'
   else:
       species = 'other'
   ```

3. Convert the following loop into a one-line list comprehension:

   ```python
   newList = []
   for v in mylist:
       newList.append(v + 5)
   ```

4. Convert the following loop into a one-line list comprehension:

   ```python
   filterList = []
   for v in mylist:
       if v > 7:
           filterList.append(v)
   ```

5. `sum(self)` is a method within the `LinkedList` class. Write a line of code that uses this method to print the `LinkedList`, ll’s, sum:

   ```python
   ll = LinkedList([0,1,2,3,4,5])
   ```

6. `__contains__(self)` is a special method in Python. Write a line of code that *implicitly* calls this method, to see if our `LinkedList`, ll, contains the value ‘24’:

   ```python
   ```
7. Python is *interpreted*, while Java is *compiled*. Describe what this means.

8. What is the main difference between a *typed language*, like Java, and an *untyped language*, like Python?

9. Despite being object-oriented, Java has some *primitive types* that are not objects. What is an example of a primitive type in Java? How does this make the language slightly more difficult to use?

10. Java, unlike Python, has a *basic or C-style for loop*, consisting of three parts: (1) an initialization expression, (2) a condition expression, and (3) an update expression. Demonstrate how you would use a for loop to see if a number, n, was prime. (Recall, a number $n > 1$ is prime if it has no divisors other than 1 and itself.)