1. **True or False?**

   __________ An if statement conditional must evaluate to True or False

   __________ While loops always terminate

2. **Rewrite the following code to use a while-loop instead of a for-loop.**

   ```python
   n = int(input("Enter a number: "))
   for i in range(n):
     if (i % 2 == 0):
       print(i, "is even")
     else:
       print(i, "is odd")
   ```

3. **Consider the following code**

   ```python
   k = int(input("Enter a number: "))
   while k > 0:
     print(k)
     k = k + 1
   ```

   Is this code always guaranteed to terminate? If yes, explain why.

   If no, explain why the code might not terminate. Is the code guaranteed to run infinitely? If no, describe a scenario in which the code does terminate.

[Solutions to these exercises]