1. Define the term *algorithm*.

2. For each of the following expressions, show the value that will be returned by the Python interpreter.
   
   (a) \((10 \% 4) + (6 / 4)\)
   
   (b) \(\text{abs}(4 - (20 / 3)) ** 3\)
   
   (c) \((5.0 / 2.0) + 3.5\)
   
   (d) "me" * 3 + "you" * 2

3. Write a **for loop** that will print the word 'hello' five times (once per line).

4. Show the output that will be produced when the following program is executed in the Python interpreter.

```python
def mystery():
    answer = 1
    for i in range(5,2,-1):
        answer = answer * i
        print "current answer is", answer
    print "final answer is", answer

mystery()
```

5. Write a **program** that will convert a measurement in inches into a measurement in centimeters. One inch is equivalent to 2.54 centimeters. Your program should prompt the user for a value in inches and print the equivalent value in centimeters.