hw07_1.py

```
 1 #!/usr/bin/env python
 2 """hw07_1.py identifier
 3 tells you if identifier is a valid Python identifier."""
 4
 5 import keyword
 6
 7 def IsValidIdentifier(name):
 8     """Tests whether 'name' is a valid python identifier.
 9     Returns  (True_or_False, reason)"""
10     if name in keyword.kwlist:
11         return (False, "Invalid: this is a keyword!")
12     if not name[0].isalpha() and not name[0] == '_':
13         return (False,
14                 "Invalid: first symbol must be alphabetic or underscore")
15     for char in name:
16         if not char.isalnum() and not char == '_':
17             return (False, "Invalid: '%s' is not allowed." % char)
18
19     return (True, "Valid!")
20
21
22 if __name__ == "__main__":
23     DATA = ('x', '_x', '2x', 'x,y', 'yield', 'is_this_good')
24     for word in DATA:
25         answer_tuple = IsValidIdentifier(word)
26         print "%20s -> %s" % (word, answer_tuple[1])
27 """
28 OUTPUT:
29
30 $ hw07_1.py
31                    x -> Valid!
32                   _x -> Valid!
33                   2x -> Invalid: first symbol must be alphabetic or underscore
34                  x,y -> Invalid: ',' is not allowed.
35                yield -> Invalid: this is a keyword!
36         is_this_good -> Valid!
37 $
38 """
```

hw07_3.py
```python
 1 #!/usr/bin/env python
 2 """hw07_3.py an interactive valid Python identifier tester."""
 3
 4 import lab07_1
 5
 6 def main():
 7     while True:
 8         identifier = raw_input("Please give an identifier: ")
 9         if not identifier:
10             break
11         answer_tuple = lab07_1.IsValidIdentifier(identifier)
12         print "%20s -> %s" % (identifier, answer_tuple[1])
13
14 if __name__ == '__main__':
15     main()
16
17 """
18 OUTPUT:
19 $ hw07_3.py
20 Please give an identifier: x
21                    x -> Valid!
22 Please give an identifier: _x
23                   _x -> Valid!
24 Please give an identifier: 2x
25                   2x -> Invalid: first symbol must be alphabetic or underscore
26 Please give an identifier: x,y
27                  x,y -> Invalid: ',' is not allowed.
28 Please give an identifier: pass
29                 pass -> Invalid: this is a keyword!
30 Please give an identifier: is_this_good
31         is_this_good -> Valid!
32 Please give an identifier:
33 $
34 """
```