

```
1 """
2 File containing class of Die
3
4 :Author: Neil Daterao
5 :note: I affirm that I have carried out the attached
6 academic endeavors with full academic honesty,
7 in accordance with the Union College Honor Code and
8 the course syllabus.
9 """
10
11
12 import random as r
13
14 class Die:
15     """
16     Class for a Die
17     """
18
19     def __init__(self, number_of_sides_of_die=6):
20         """
21         constructor
22         """
23         self.__num_of_sides = number_of_sides_of_die
24         self.__current_val = 1
25
26     def roll(self):
27         """
28         Rolls the die to a random side
29         """
30         random_num = r.randrange(1, self.
31         __num_of_sides)
32         self.__current_val = random_num
33
34     def get_value(self):
35         """
36         Returns the current value of the side the die
37         rolled on
38         """
39         return self.__current_val
40
41     def get_number_of_sides(self):
```

```
38         """
39         Return the number of sides of the die
40         """
41         return self.__num_of_sides
42
43
44 if __name__ == "__main__":
45     dice6 = Die(6)
46     dice12 = Die(12)
47     print(dice6.get_value())
48     print(dice12.get_value())
49     dice12.roll()
50     dice6.roll()
51     print(dice6.get_value())
52     print(dice12.get_value())
53     test_die = Die(0)
54     test_die1 = Die(3)
55     print(test_die.get_number_of_sides())
56     print(test_die1.get_number_of_sides())
57
```

```
1 from die import *
2 """
3 Game comparing two die until one die is twice the
  value of the other
4 """
5
6 def main():
7     """
8     Game comparing two die
9     """
10
11     die6 = Die()
12     die12 = Die(12)
13     die6.roll()
14     die12.roll()
15
16     while (die6.get_value() != (2 * die12.get_value
17     ())) and ((2 * die6.get_value()) != die12.get_value
18     ()):
19         print("Die of 6 sides value is:", die6.
20         get_value())
21         print("Die of 12 sides value is:", die12.
22         get_value())
23         user_press_return = input("Press return to
24         roll again \n")
25
26         die6.roll()
27         die12.roll()
28
29         print("You won! Game Over!")
30         print("Die of 6 sides value is:", die6.get_value
31         ())
32         print("Die of 12 sides value is:", die12.
33         get_value())
34
35 if __name__ == "__main__":
36     main()
37
```