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"""
Models a die

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:note: I affirm that I have carried out the attached academic endeavors with full academic honesty,
in accordance with the Union College Honor Code and the course syllabus.
"""

import random

MINIMUM_VAL = 1
TWICE = 2
DEFAULT_SIDE = 6

class Die:

    def __init__(self, side_num = DEFAULT_SIDE):
        """
        Constructor

        :param side_num: the number of sides the die has
        """
        self.__side_num = side_num
        self.__current_val = MINIMUM_VAL

    def roll(self):
        """
        Rolls the die and reassigns the current value instance variable

        :return:
        """
        self.__current_val = (random.randint(MINIMUM_VAL, self.__side_num))

    def get_value(self):
        """
        Gets the value currently showing on the die

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38          :return: the value currently showing on the die
39          """
40          return self.__current_val
41
42      def is_twice(self, other_die):
43          """
44          Checks whether one of the dice shows a value that is
    exactly twice the value of the other
45
46          :param other_die: a Die object for the other die for
    comparison
47          :return: True if the value of other die is two times
    larger than the value of current die itself
48          """
49          if self.get_value() == other_die.get_value() * TWICE:
50              return True
51
52          else:
53              return False
54
55      def __str__(self):
56          """
57          Converts to the human understandable string
58
59          :return: a human understandable string for the current
     value of the die
60          """
61          return str(self.__current_val)
```

```python
"""
A simple die game
"""

from die import *

SIDE12 = 12

def main():
    D6 = Die()
    D12 = Die(SIDE12)

    while not D12.is_twice(D6) and not D6.is_twice(D12):
        input("Press return")

        D6.roll()
        D12.roll()

        print("D6: ", D6, "D12: ", D12)

    print("We have won, and the program ends")

if __name__ == "__main__":
    main()
```