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Die Class Pre-Lab

Describe one obvious attribute of a Die:

The die should have an attribute that is the number that is rolled.

Is there an attribute that changes? Is there an attribute that does not change?

The number rolled should change whenever the player takes an action to roll the dice. An attribute that should not change is the maximum number that can be rolled. This number should be set at initialization and never change while the program is running.

What behaviors are obvious?

The obvious action is to roll the dice, which would mean choosing a random number between 1 and the maximum number. Another action would be to check the die to see what number has been rolled. These actions should be separate.

Can the number of faces of a die change after it has been created?

The number of faces should not change on a die after it has been created, you cannot morph a die you have in real life to add or remove faces. In real life you would grab a new die, which in the program, would represent that as creating a new die class.

Can I change the value on the die without rolling it?

The value on the die should not change without rolling it. We do not want the player to be able to select what number they want, that would be cheating. The player must roll the die to achieve a new value.

Die

* value: integer
* maxValue: integer

+ Die()

+ Die(value, maxValue)

+ getValue(): integer

+ getmaxValue(): integer

Envision two ways to test your “dice”

1. Roll the die a number of times to ensure that the die has the ability to output the numbers in the range given,
2. Test the die with each maximum value possible, from 2 to 32. This will ensure that all types of die are possible to be used.