Module main ()

//Declare objects of the MyInteger class and use MyInteger() constructor

MyInteger object0 = new MyInteger(22)

MyInteger object1 = new MyInteger(22)

MyInteger object2 = new MyInteger(23)

String object3 = "24"

char[] object4 = {'1', '2'}

//Using getValue() function

Display "Object 0 Value: " + object0.getValue()

Display "Object 1 Value: " + object1.getValue()

Display "Object 2 Value: " + object2.getValue()

//Using isEven() functions

Display "Object 0 is even: " + object0.isEven()

Display "Object 1 is even: " + object1.isEven()

Display "Object 2 is even: " + object2.isEven()

//Using isOdd() functions

Display "Object 0 is odd: " + object0.isOdd()

Display "Object 1 is odd: " + object1.isOdd()

Display "Object 2 is odd: " + object2.isOdd()

//Using isPrime() functions

Display "Object 0 is prime: " + object0.isPrime()

Display "Object 1 is prime: " + object1.isPrime()

Display "Object 2 is prime: " + object2.isPrime()

//Using equals() functions

Display "Object 1 is equal to 22: " + object1.equals(22)

Display "Object 1 is equal to Object 0: " + object1.equals(object0)

//Using parseInt() functions

Display "Object 3: " + MyInteger.parseInt(object3)

Display "Object 4: " + MyInteger.parseInt(object4)

End Module main

Class MyInteger ()

//Declare attribute "value" for the MyInteger class

Private Int value

//Constructor that sets specified value

MyInteger(Int newValue)

value = newValue

End MyInteger

//Method to get the value of "value" variable

Public Int getValue()

Return value

End getValue

//isEven() function to return "true" if the objects "value" is even

Public Boolean isEven()

If ((value % 2) == 0)

Return True

Else

Return False

End if

End isEven

//isOdd() function to return "true" if the objects "value" is odd

Public Boolean isOdd()

If ((value % 2) == 1)

Return True

Else

Return False

End if

End isOdd

//isPrime() function to return "true" if the objects "value" is prime

Public Boolean isPrime()

If (value == 2)

Return True

End if

For (int i = 2; i <= value / 2; i++)

If (value % i == 0)

Return False

End if

End for

Return True

End isPrime

//isEven(int) static function to return "true" if the number entered is even

Public Static Boolean isEven(Int tValue)

If ((tValue % 2) == 0)

Return True

Else

Return False

End if

End isEven(Int)

//isOdd(int) static function to return "true" if the number entered is odd

Public Static Boolean isOdd(Int tValue)

If ((tValue % 2) == 1)

return true

Else

return false

End if

End isOdd(Int)

//isPrime(int) static function to return "true" if the number entered is prime

Public Static Boolean isPrime(Int tValue)

If (tValue == 2)

Return True

End if

For (Int i = 2; i <= tValue / 2; i++)

If (tValue % i == 0)

Return False

End if

End for

Return True

End isPrime(Int)

//isEven(MyInteger) static function to return "true" if the objects "value" is even

Public Static Boolean isEven(MyInteger oValue)

Return oValue.isEven()

End isEven(MyInteger)

//isOdd(MyInteger) static function to return "true" if the objects "value" is odd

Public Static Boolean isOdd(MyInteger oValue)

Return oValue.isOdd()

End isOdd(MyInteger)

//isPrime(MyInteger) static function to return "true" if the objects "value" is prime

Public Static Boolean isPrime(MyInteger oValue)

Return oValue.isPrime()

End isPrime(MyInteger)

//equals(int) function to return "true" is the object's "value" is equal to the integer entered

Public Boolean equals(Int tValue)

If (value == tValue)

Return True

Else

Return False

End if

End equals(int)

//equals(int) function to return "true" is the both objects "value" attribute are the same value

Public Boolean equals(MyInteger oValue)

If (oValue.value == this.value)

Return True

Else

Return False

End equals(MyInteger)

//parseInt(char[]) function to convert a character array containing a numerical values into an integer

Public Static Int parseInt(char[] array)

Int sValue = Integer.parseInt(new String(array))

Return sValue

End parseInt(char[])

//parseInt(String) function to convert a string into an integer

Public Static Int parseInt(String string)

Int sValue = Integer.parseInt(string)

Return sValue

End parseInt(String)

End Class MyInteger