Code Segment A

```
if (choice > 10)
{
  System.out.println("blue");
}
else if (choice < 5)
{
  System.out.println("red");
}
else
{
  System.out.println("yellow");
}
```

Code Segment B

```
if (choice > 10)
{
  System.out.println("blue");
}
if (choice < 5)
{
  System.out.println("red");
}
else
{
  System.out.println("yellow");
}
```

Assume that both code segments initialize `choice` to the same integer value. Which of the following best describes the conditions on the initial value of the variable `choice` that will cause the two code segments to produce different output?

Code Segment I

```
double points = 0.0;
if (grade > 89)
{
  points += 4.0;
}
else if (grade > 79)
{
  points += 3.0;
}
else if (grade > 69)
{
  points += 2.0;
}
else
{
  points += 0.0;
}
System.out.println(points);
```

Code Segment II

```
double points = 0.0;
if (grade > 89)
{
  points += 4.0;
}
if (grade > 79)
{
  grade += 3.0;
}
if (grade > 69)
{
  points += 2.0;
}
if (grade < 70)
{
  points += 0.0;
}
System.out.println(points);
```

Which of the following statements correctly compares the values printed by the two methods?

Consider the following code segment in which the `int` variable `x` has been properly declared and initialized.

```
if (x % 2 == 1)
{
  System.out.println("YES");
}
else
{
  System.out.println("NO");
}
```

Assuming that `x` is initialized to the same positive integer value as the original, which of the following code segments will produce the same output as the original code segment?

I.

```
if (x % 2 == 1)
{
  System.out.println("YES");
}
if (x % 2 == 0)
{
  System.out.println("NO");
}
```

II.

```
if (x % 2 == 1)
{
  System.out.println("YES");
}
else if (x % 2 == 0)
{
  System.out.println("NO");
}
else
{
  System.out.println("NONE");
}
```

III.

```
boolean test = x % 2 == 0;
if (test)
{
  System.out.println("YES");
}
else
{
  System.out.println("NO");
}
```