

Exercise 1

Assuming that the variable x is storing 1, determine the result of the boolean expressions below.

(a)	$(\text{true}) \ \&\& \ (4 < 3)$	Result: false
(b)	$!(x < 0) \ \&\& \ (x < 0)$	Result: false
(c)	$(x < 0) \ \ (x > 0)$	Result: true
(d)	$(x != 0) \ \ (x == 0)$	Result: true
(e)	$(x >= 0) \ \ (x < 0)$	Result: true
(f)	$(x != 0) \ == \ !(x == 0)$	Result: true

Exercise 2

Assuming that x and y are `int` type, which of the followings are legal Java expressions?

(a)	$x > y > 0$	<input type="checkbox"/> legal	<input checked="" type="checkbox"/> illegal
(b)	$x = y \ \ y$	<input checked="" type="checkbox"/> legal	<input type="checkbox"/> illegal
(c)	$x /= y$	<input checked="" type="checkbox"/> legal	<input type="checkbox"/> illegal
(d)	$x \ \text{or} \ y$	<input type="checkbox"/> legal	<input checked="" type="checkbox"/> illegal
(e)	$x \ \text{and} \ y$	<input type="checkbox"/> legal	<input checked="" type="checkbox"/> illegal
(f)	$(x != 7) \ \ (x = 7)$	<input type="checkbox"/> legal	<input checked="" type="checkbox"/> illegal

Exercise 3

2

Exercise 4

```
switch (a) {  
    case 1:  
        x += 3;  
        break;  
    case 2:  
        x += 5;  
        break;  
    case 3:  
        x += 7;  
        break;  
    default:  
        x += 10;  
}
```

Exercise 5

```
(x >= 20 && (x <= 30)) || x < 0
```