

633228

What is printed when the following program runs?

```
public class Main {  
    public static boolean getTrue() {  
        System.out.print("T");  
        return true;  
    }  
  
    public static boolean getFalse() {  
        System.out.print("F");  
        return false;  
    }  
  
    public static void main(String[] args) {  
        getTrue() || getFalse();  
    }  
}
```

- a. TF
- b. F
- *c. T
- d. TT
- e. Nothing is printed
- f. "
- g. "
- h. "
- i. "
- j. "

General Feedback:

If the first operand for || is true, as is the case here, the second is not evaluated.

633895

Kexin is hashing the values 9, 45, 22, 48, 38 into a hash table of size 20. Which hash function will give her no collisions?

- a. $h(k) = k \% 10$
- b. $h(k) = k / 10$
- c. $h(k) = (k \% 10) + (k / 10)$
- *d. $h(k) = (k \% 10) - (k / 10)$
- e. "
- f. "
- g. "
- h. "
- i. "

General Feedback:

A will collide on the 48/38; B will collide with 45/48; C will collide with 9/45.

633618

True or False:

Breadth-first search (BFS) and Depth-first search (DFS) visit nodes of a graph in the same order only if the graph looks like a linear chain, or linked list, and the traversal starts at one of the ends.

For example, BFS and DFS starting at node A are the same for the following graph:

A <-> B <-> C

- a. True
- *b. False
- c.
- d.
- e.
- f. "
- g. "

General Feedback:

We could add any number of nodes to node B, and visit nodes in the same order starting at node A and node B.