

### Problem 11-2

Use the technique of using a `HashMap` to perform rapid removal of duplicates from a `List` to solve the following problem:

Create a Java method

```
boolean checkForSum(List<Integer> list, Integer z)
```

in a class `Schur`, which does the following: If there are two elements  $x, y$  in the list whose sum is  $z$ , return `true`; otherwise, return `false`.

Your implementation *may not use nested loops*; you should be able to obtain the correct return value by doing a single scan of the input list. See the Lesson 11 slides to see how this technique works in the case of removing duplicates.