

**Werkcollege Compilerconstructie**  
**Woensdag 21 oktober 2015**

1. (Derived from Exercise 6.4.3(a) from the book)

Consider the following assignment:

$$x = a[i] + b[j]$$

where the arrays  $a$  and  $b$  are declared as follows:

```
int a[5];
```

```
int b[7];
```

- (a) Draw the 'syntax trees' for the types of  $a$  and  $b$ .
- (b) Draw the parse tree for the assignment.
- (c) Use the translation scheme of Fig. 6.22 to annotate the parse tree. Give the resulting translation of the assignment into three-address code.