P35.
Exercises for Section 1.6

Exercise 1.6.1: For the block-structured C code of Fig. 1.13(a), indicate the values assigned to w, x, y, and z.

Exercise 1.6.2: Repeat Exercise 1.6.1 for the code of Fig. 1.13(b).

```
int w, x, y, z;
int i = 4; int j = 5;
{   int j = 7;
    i = 6;
    w = i + j;
}
x = i + j;
{   int i = 8;
    y = i + j;
}
z = i + j;
```

(a) Code for Exercise 1.6.1

```
int w, x, y, z;
int i = 3; int j = 4;
{   int i = 5;
    w = i + j;
}
x = i + j;
{   int j = 6;
    i = 7;
    y = i + j;
}
z = i + j;
```

(b) Code for Exercise 1.6.2

Figure 1.13: Block-structured code

Exercise 1.6.3: For the block-structured code of Fig. 1.14, assuming the usual static scoping of declarations, give the scope for each of the twelve declarations.

```
{   int w, x, y, z;     /* Block B1 */
    {   int x, z;       /* Block B2 */
        {   int w, x;   /* Block B3 */ }
    }
    {   int w, x;       /* Block B4 */
        {   int y, z;   /* Block B5 */ }
    }
}
```

Figure 1.14: Block structured code for Exercise 1.6.3