

7.9

(d) $((\neg a)^1 \text{ or } ((c = d)^2 \text{ and } e)^3)^4$

(e) $((((a > b)^1 \text{ xor } c)^3 \text{ or } (d \leq 17)^2)^3)^4$

7.10

(d) $(-(a \text{ or } (c = (d \text{ and } e)^1)^2)^3)^4$

(e) $(a > (b \text{ xor } (c \text{ or } (d \leq 17)^1)^2)^3)^4$

7.13

a. $\text{sum1} = (\text{i}_{\text{old}} / 2) + \text{fun}(\&\text{i}_{\text{new}}) = (10 / 2) + (3 * (10 + 4) - 1)$
 $= 5 + 41 = 46$

$$\begin{aligned}\text{sum2} &= \text{fun}(\&\text{j}_{\text{old}}) + (\text{j}_{\text{new}}/2) = (3 * (10 + 4) - 1) + (14 / 2) \\ &= 41 + 7 = 48\end{aligned}$$

b. $\text{sum1} = \text{fun}(\&\text{i}_{\text{old}}) + (\text{i}_{\text{new}}/2) = (3 * (10 + 4) - 1) + (14 / 2)$
 $= 41 + 7 = 48$

$$\begin{aligned}\text{sum2} &= (\text{j}_{\text{old}} / 2) + \text{fun}(\&\text{j}_{\text{new}}) = (10 / 2) + (3 * (10 + 4) - 1) \\ &= 5 + 41 = 46\end{aligned}$$

7.19

a. $x = \text{x}_{\text{old}} + \text{fun}(\&\text{x}_{\text{new}}) = 3 + 4 = 7$

b. $x = \text{fun}(\&\text{x}_{\text{old}}) + \text{x}_{\text{new}} = 4 + (3 + 5) = 12$

8.3

```
switch (k)
{
    case 1:
    case 2:
        j = 2 * k - 1;
        break;
    case 3:
    case 5:
        j = 3 * k + 1;
        break;
    case 4:
        j = 4 * k - 1;
        break;
    case 6:
    case 7:
    case 8:
        j = k - 2;
        break;
    default:
        break;
}
```

8.4

```
int j = -3;
for (int i = 0; i < 3; i++)
{
    if ((j + 2) == 3 || (j + 2) == 2)
    {
        j--;
    } else if ((j + 2) == 0)
    {
        j += 2;
    } else
    {
        j = 0;
    }
}
```

```
if (j <= 0)
{
    j = 3 - i;
}
```

9.5

(a)

```
value = 2, list = {1, 3, 5, 7, 9}
value = 2, list = {1, 3, 5, 7, 9}
value = 2, list = {1, 3, 5, 7, 9}
```

(b)

```
value = 1, list = {2, 3, 5, 7, 9}
value = 1, list = {3, 2, 5, 7, 9}
value = 2, list = {3, 1, 5, 7, 9}
```

(c)

```
value = 1, list = {2, 3, 5, 7, 9}
value = 1, list = {3, 2, 5, 7, 9}
value = 2, list = {3, 1, 5, 7, 9}
```

9.7

(a)

```
list = {1,3}
```

(b)

```
list = {2,6}
```

(c)

```
list = {2,6}
```