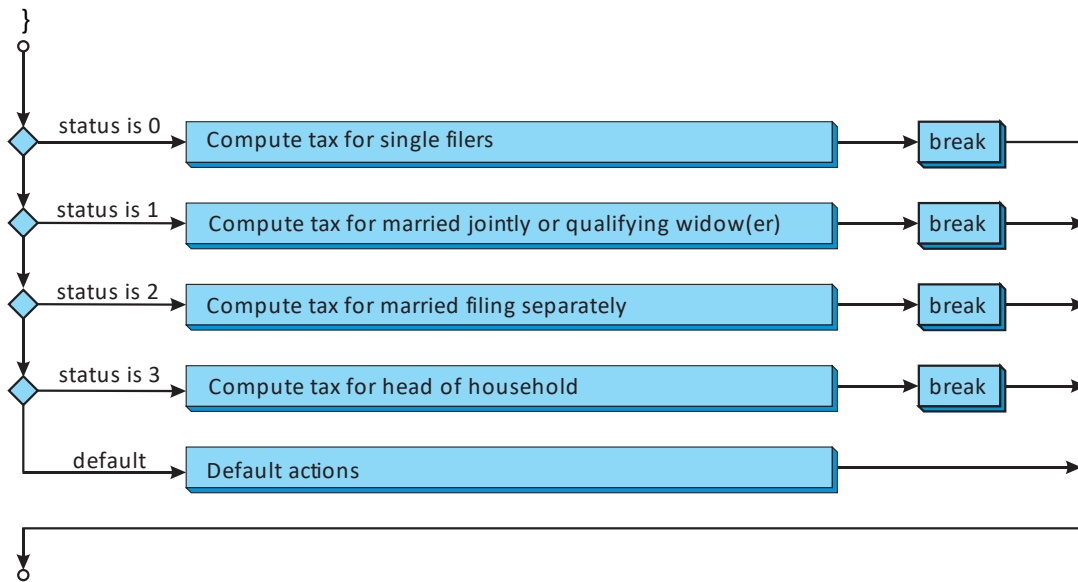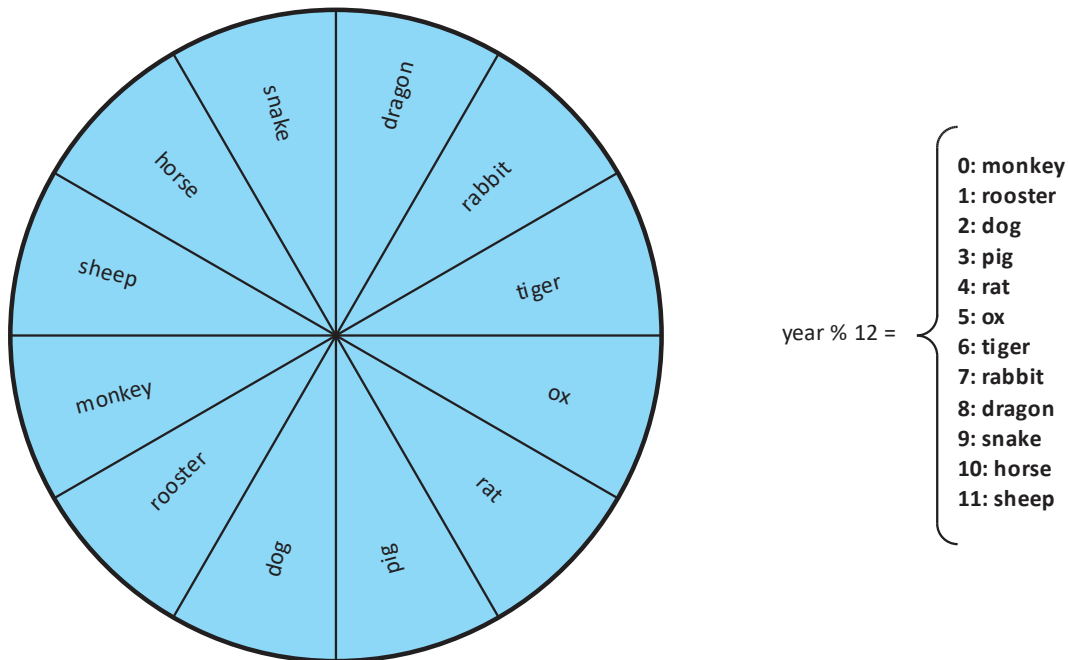Key point: *A switch statement executes statements based on the value of a variable or on an expression.*

```
switch (status) {
    case 0:      //compute tax for single filers;
    break;
    case 1:      //compute tax for married jointly or qualifying widow(er);
    break;
    case 2:      //compute tax for married filing separately
    break;
    case 3:      //compute tax for head of household
    default:     System.out.println("Error: invalid status");
    System.exit(1);
}
```

Figure 3.5 The switch statement checks all cases and executes the statements in the matched case.

Figure 3.6 The Chinese Zodiac is based on a 12-year cycle

Listing 3.9 ChineseZodiac.java

```
 1   import java.util.Scanner:
 2
 3   public class ChineseZodiac {
 4       public static void main(String[] args) {
 5           Scanner input = new Scanner(System.in);
 6
 7           System.out.print("Enter a year: ");
 8           int year = input.nextInt();
 9
10           switch (year % 12) {
11               case 0: System.out.println("monkey");      break;
12               case 1: System.out.println("rooster");     break;
13               case 2: System.out.println("dog");         break;
14               case 3: System.out.println("pig");         break;
15               case 4: System.out.println("rat");      break;
16               case 5: System.out.println("ox");       break;
17               case 6: System.out.println("tiger");    break;
18               case 7: System.out.println("rabbit");   break;
19               case 8: System.out.println("dragon");   break;
20               case 9: System.out.println("snake");    break;
21               case 10: System.out.println("horse");   break;
22               case 11: System.out.println("sheep");   break;
23           }
24       }
25   }
```

year % 12 =

```
0: monkey
1: rooster
2: dog
3: pig
4: rat
5: ox
6: tiger
7: rabbit
8: dragon
9: snake
10: horse
11: sheep
```

```
run:
Enter a year: 1963
rabbit
BUILD SUCCESSFUL (total time: 8 seconds)
```

```
run:
Enter a year: 1877
ox
BUILD SUCCESSFUL (total time: 4 seconds)
```

```
run:
Enter a positive integer value: 10
The lottery number is 66
Sorry, no match
BUILD SUCCESSFUL (total time: 4 seconds)
```

```
run:
Enter a positive integer value: 9
The lottery number is 19
Match one digit: you win $1,000
BUILD SUCCESSFUL (total time: 1 second)
```

```
run:
Enter a positive integer value: 9
The lottery number is 90
Match all digits: you win $3,000
BUILD SUCCESSFUL (total time: 1 second)
```