

Worksheet 7 Switch Statement Questions

1. Given the following switch statement:

```
cout << "enter the grade: ";
cin >> grade;
switch (grade)
{
    case 'A':
    case 'B':
        cout << "good work" << endl;
        break;
    case 'C':
        cout << "average work" << endl;
        break;
    case 'D':
        cout << "just passing" << endl;
        break;
    case 'F':
        cout << "poor work" << endl;
        failing++;
        break;
}
```

What would be printed if the grade were:

- A. A
- B. D
- C. b

2. Modify the switch statement in question 1 so that it prints an error message if an invalid grade is entered.

3. Modify the switch statement in question 1 so that it works for grades entered as uppercase or lowercase letters.

4. A. Write the equivalent if/else statements for the program segment in Question # 1.

B. If you were guaranteed that only VALID grades would be entered by the user, could the if/else statement be written any differently? If so, how?

5. Show the output of the following:

```
int1 = 4;
switch (int1)
{
    case 1:
        cout << 4;
        break;
    case 2:
        cout << 1;
        break;
    case 3:
```

```
    cout << 7;
    break;
case 4:
    cout << 9;
    break;
case 5:
    cout << 6;
    break;
}
```

6. Show the output of the following:

```
int1 = 4;
switch (int1)
{
    case 1:
        cout << 4;
        break;
    case 2:
        cout << 1;
        break;
    case 3:
        cout << 7;
        break;
    case 2:
        cout << 9;
        break;
    case 5:
        cout << 6;
        break;
}
```

7. Show the output of the following:

```
int1 = 4;
switch (int1)
{
    case 1:
        cout << 4;
        break;
    case 2:
        cout << 1;
        break;
    case 3:
        cout << 7;
        break;
    case 4:
        cout << 9;
    case 5:
        cout << 6;
}
```

8. An electronics store is having a sale. Items from the audio department (dept code 310) are 10% off. Items from the video department (dept code 438) are 12% off. Items from the computer department (dept code 284) are 8% off, and items from the communications department (dept code 652) are 15% off. Items from other departments are 5% off. Write the statements to read in the regular price of an item and the dept code, and calculate the sale price. Print the regular price and the sale price. Use a nested if statement.

9. Rewrite your code from problem 7 using a switch statement.