Chapter 2

1. semicolon
2. `iostream`
3. `main`
4. #
5. braces `{}`
6.
7. 9.7865E14
8. 1, 2
9. B
10. A, C
11. B (C is valid, but prints the contents of variable `Hello`, rather than the string `Hello`".)
12. B
13. A) 11 B) 14 C) 3 (An integer divide takes place.)
14. A) 9 B) 14 C) 2

15.
```
double temp,
       weight,
       height;
```

16.
```
int months = 2,
      days,
      years = 3;
```

17.
```
A)   d2 = d1 + 2;
B) d1 = d2 * 4;
C)   c = 'K';
D) i = 'K';
E)   i = i - 1;
```

18.
```
A)   d1 = d2 - 8.5;
B)   d2 = d1 / 3.14;
C)   c = 'F';
D)   i = i + 1;
E)   d2 = d2 + d1;
```

19.
```
cout << "Two mandolins like creatures in the\n\n\n";
cout << "dark\n\n\n";
cout << "Creating the agony of ecstasy.\n\n\n";
cout << "                    - George Barker\n\n\n";
```

20.
```
cout << "L\n"
     << "E\n"
     << "A\n"
     << "F\n";
```
This can also be written as a single string literal: `cout << "L\nE\nA\nF\n";`

21.
```
Input weeks              // with prompt
days = weeks * 7
Display days
```

22.
```
Input eggs              // with prompt
cartons = eggs / 12     // perform integer divide
Display cartons
```

23.
```
Input speed            // with prompt
Input time             // with prompt
distance = speed * time
Display distance
```

24.
```
Input miles            // with prompt
Input gallons          // with prompt
milesPerGallon = miles / gallons
Display milesPerGallon
```

25. A)
```
0
100
```

B)
```
8
2
```

C)
```
I am the incrediblecomputing
machine
and I will
amaze
you.
```

26. A)
```
Be careful!
This might/n be a trick question.
```

B)
```
23
1
```

27. The C-style comments symbols are backwards.

`iostream` should be enclosed in angle brackets.

There shouldn't be a semicolon after `int main()`.

The opening and closing braces of function `main` are reversed.

There should be a semicolon after `int a, b, c`.

The comment `\\ Three integers` should read `// Three integers`.

There should be a semicolon at the end of each of each of the following lines:

```
a = 3
b = 4
c = a + b
```

`cout` begins with a capital letter.

The stream insertion operator (that appears twice in the `cout` statement) should read << instead of <.

The `cout` statement uses the variable `C` instead of `c`.

28. Whatever problem a pair of students decides to work with they must determine such things as which values will be input vs. which will be set internally in the program, how much precision is required on calculations, what output will be produced by the program, and how it should be displayed. Students must also determine how to handle situations that are not clear cut. In the paint problem many of these considerations are listed in the teacher answer key (Chapter 1, Question 34). In the recipe program students must determine such things as how to handle quantities, like one egg, that cannot be halved. In the driving program, knowing distance and speed are not enough. Agreement should be reached on how to handle delays due to traffic lights and traffic congestion. Should this be an input value, computed as a percent of overall driving time, or handled some other way?