18. The four steps are preprocessing, compiling, assembling, and linking. In preprocessing, the source code is taken in and an equivalent c code is generated by performing operations like removing comments. When compiling, the complier turns the preprocessed code into assembly code for a specific processor. Then the assembler in assembly converts the assembly instructions into processor-dependent machine-level binary object code. In linking, the linker takes one or more object code files and produces a single executable file.

19. The return type of main is determined by the data type assigned in front of main. If it is int main(void) {----; return 0;}, the return value is 0 which is int as is define before main.

21.
```
(base) ariar@dhcp-10-103-252-7 crashcourse % ./q21
(a) 140
(b) 4
(c) 24
```

22.
```
(base) ariar@dhcp-10-103-252-7 crashcourse % ./q22
(a) 0.000000
(b) 0.666667
(c) 0.000000
(d) 3
(e) 3
(f) 3.000000
```

27. I would take individual function as a module, then making it the main function and execute to see if each module can produce the expected value. I would also take a look into global variables and libraries which can potentially cause the problem as well.

30.
```
(base) ariar@Arias-MacBook-Air crashcourse % ./q30
(a)3
(b)4
(c)2
(d)6
(e) error!
(f) error!
(g)2
```

31.
```
(base) ariar@dhcp-10-103-252-7 crashcourse % ./q31
5%
```

32.
```
(base) ariar@Arias-MacBook-Air crashcourse % ./q32
(a) f2
(b) 1
(c) f
(d) e
(e) 1
(f) 68
(g) ba
```