|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chapter** | **Section** | **Topic** | **Where Line #''s** | **Pts** | **Notes** |
| 2 | 2 | cout |  |  |  |
|  | 3 | libraries | 9-13 | 5 | iostream, iomanip, cmath, cstdlib, fstream, string, ctime |
|  | 4 | variables/literals |  |  | No variables in global area, failed project! |
|  | 5 | Identifiers |  |  |  |
|  | 6 | Integers | throughout | 1 |  |
|  | 7 | Characters | throughout | 1 |  |
|  | 8 | Strings | throughout | 1 |  |
|  | 9 | Floats No Doubles | 44 | 1 | Using doubles will fail the project, floats OK! |
|  | 10 | Bools |  | 1 |  |
|  | 11 | Sizeof \*\*\*\*\* |  |  |  |
|  | 12 | Variables 7 characters or less |  |  | All variables <= 7 characters |
|  | 13 | Scope \*\*\*\*\* No Global Variables |  |  |  |
|  | 14 | Arithmetic operators |  |  |  |
|  | 15 | Comments 20%+ |  | 2 | Model as pseudo code |
|  | 16 | Named Constants |  |  | All Local, only Conversions/Physics/Math in Global area |
|  | 17 | Programming Style \*\*\*\*\* Emulate |  |  | Emulate style in book/in class repositiory |
|  |  |  |  |  |  |
| 3 | 1 | cin |  |  |  |
|  | 2 | Math Expression |  |  |  |
|  | 3 | Mixing data types \*\*\*\* |  |  |  |
|  | 4 | Overflow/Underflow \*\*\*\* |  |  |  |
|  | 5 | Type Casting | 26, 72, 300 | 1 |  |
|  | 6 | Multiple assignment \*\*\*\*\* |  |  |  |
|  | 7 | Formatting output | 73, 302, 414,73, 302 | 1 | Fixed, setw, set precision |
|  | 8 | Strings |  | 1 |  |
|  | 9 | Math Library | Did not include | 1 |  |
|  | 10 | Hand tracing \*\*\*\*\*\* |  |  |  |
|  |  |  |  |  |  |
| 4 | 1 | Relational Operators |  |  |  |
|  | 2 | if | first use @ 108 | 1 | Independent if |
|  | 4 | If-else | first use @ 70 | 1 |  |
|  | 5 | Nesting | First use @ 103-108 | 1 |  |
|  | 6 | If-else-if | First use @ 111-113 | 1 |  |
|  | 7 | Flags \*\*\*\*\* |  |  |  |
|  | 8 | Logical operators | throughout | 1 |  |
|  | 11 | Validating user input | 127, 131, 146, 161, 175, 191 | 1 |  |
|  | 13 | Conditional Operator | First use @ 275 - 278 | 1 |  |
|  | 14 | Switch | 423 | 1 |  |
|  |  |  |  |  |  |
| 5 | 1 | Increment/Decrement | First: ++ @ 103, -- @ 357 | 1 |  |
|  | 2 | While | 131, 146, 161, 175, 191 | 1 | Validate suit play for player |
|  | 5 | Do-while | 87, 127 | 1 | score < 50, player card check |
|  | 6 | For loop | First use at 103 | 1 |  |
|  | 11 | Files input/output both | In @ 64-67 out @ 305-307 | 2 |  |
|  | 12 | No breaks in loops \*\*\*\*\*\* |  |  | Failed Project if included |
|  |  |  |  |  |  |
| \*\*\*\*\*\* Not required to show |  |  | Total | 30 |  |
| **Chapter** | **Section** | **Topic** | **Where Line #''s** | **Pts** | **Notes** |
| 6 |  | Functions |  |  |  |
|  | 3 | Function Prototypes | hearts.h: 25 - 43 | 4 | Always use prototypes |
|  | 5 | Pass by Value | Shuffle function | 4 |  |
|  | 8 | Return | Linear search function | 4 | A value from a function |
|  | 9 | Returning a Boolean | playCard | 4 |  |
|  | 10 | Global Variables |  | XXX | DO NOT USE – 100pts |
|  | 11 | Static variables | 255 | 4 | count(); |
|  | 12 | Defaulted arguments | Did not use | 4 |  |
|  | 13 | Pass by reference | Almost all my functions | 4 |  |
|  | 14 | Overloading | 84, 95, 267 | 5 | Assign face val & deal both use deal() |
|  | 15 | Exit() function | 299 | 4 |  |
|  |  |  |  |  |  |
| 7 |  | Arrays |  |  |  |
|  | 1 – 6 | Single Dimensioned Arrays | Deck, hand, suit, show, | 3 |  |
|  | 7 | Parallel Arrays | Deck & face | 2 |  |
|  | 8 | Single Dimensioned as function arguments | throughout | 2 |  |
|  | 9 | 2 Dimensioned Arrays | Face[][] | 2 | Emulate style in book / repository |
|  | 12 | STL Vectors | 34 | 2 | deck |
|  |  | Passing Arrays to and from Functions | throughout | 5 |  |
|  |  | Passing Vectors to and from Functions | 330,337,393 | 5 | Deal, shuffle, linSrch |
|  |  |  |  |  |  |
| 8 |  | Searching & Sorting Arrays |  |  |  |
|  | 3 | Bubble Sort | 97, 269 | 4 | MarkSort: 99. 100, 271, 272 |
|  | 3 | Selection Sort | 98, 270 | 4 |  |
|  | 1 | Linear or Binary Search | 108 | 4 | linear |
| **EXTRAS:** | | | | | |
| 11 |  | Structured Data |  |  |  |
|  | 1-5 | Structure Use | Hearts.h: 10 |  | Player |
|  | 7 | Structures as Function Arguments | throughout |  |  |
|  | 8 | Returning Structure from Function | throughout |  |  |
| \*\*\*\*\*\* Not required to show |  |  | Total | 30 |  |