

```

1: //Kalli Bonin and Derek Broekhoven
2: //Question 2 - Guess a Number
3:
4: #include <iostream>
5: #include <cmath>
6: #include <cstdlib>
7:
8: using namespace std;
9:
10: int main()
11: {
12:     cout << "Think of a number between 1 and 7. "
13:         << "Enter 'ready' when ready to start" << endl;
14:
15:
16:     string ready = " ";
17:     cin >> ready;
18:
19:     if (ready == "ready")
20:     {
21:         bool completed = false;
22:         int guess = 4;
23:
24:         for (int i = 2; i >= 0; i--)
25:         {
26:             cout << "Is the number " << guess << "?" << endl;
27:
28:             cout << "Enter y if the guess is correct." << endl
29:                 << "Enter h if the computer should guess higher." << endl
30:                 << "Enter l if the computer should guess lower. ";
31:
32:             char response = ' ';
33:             cin >> response;
34:
35:
36:
37:             if (response == 'y')
38:             {
39:                 cout << "Your secret number is " << guess;
40:                 completed = true;
41:                 break;
42:             }
43:             else if (response == 'h')
44:                 guess += i;
45:             else if (response == 'l')
46:                 guess -= i;
47:             else
48:             {
49:                 cout << "Not a valid response.";
50:                 completed = true;
51:                 break;
52:             }
53:
54:         }
55:

```

```

56:         if (completed == false)
57:             cout << "User was not truthful.";
58:         }
59:     else
60:         cout << "Not valid confirmation.";
61: }
62:
63: /*number guessed correctly in two tries or less
64:
65:     Think of a number between 1 and 7. Enter 'ready' when ready to start
66:     ready
67:     Is the number 4?
68:     Enter y if the guess is correct.
69:     Enter h if the computer should guess higher.
70:     Enter l if the computer should guess Lower. h
71:     Is the number 6?
72:     Enter y if the guess is correct.
73:     Enter h if the computer should guess higher.
74:     Enter l if the computer should guess Lower. y
75:     Your secret number is 6
76:     -----
77:     Process exited after 32.03 seconds with return value 0
78:     Press any key to continue . . .
79: */
80:
81: /*number guessed correctly onn third try
82:
83:     Think of a number between 1 and 7. Enter 'ready' when ready to start
84:     ready
85:     Is the number 4?
86:     Enter y if the guess is correct.
87:     Enter h if the computer should guess higher.
88:     Enter l if the computer should guess Lower. h
89:     Is the number 6?
90:     Enter y if the guess is correct.
91:     Enter h if the computer should guess higher.
92:     Enter l if the computer should guess Lower. h
93:     Is the number 7?
94:     Enter y if the guess is correct.
95:     Enter h if the computer should guess higher.
96:     Enter l if the computer should guess Lower. y
97:     Your secret number is 7
98:     -----
99:     Process exited after 9.759 seconds with return value 0
100:    Press any key to continue . . .
101: */
102:
103: /*user is not truthful
104:
105:     Think of a number between 1 and 7. Enter 'ready' when ready to start
106:     ready
107:     Is the number 4?
108:     Enter y if the guess is correct.
109:     Enter h if the computer should guess higher.
110:     Enter l if the computer should guess Lower. h

```

```
111:    Is the number 6?
112:    Enter y if the guess is correct.
113:    Enter h if the computer should guess higher.
114:    Enter l if the computer should guess lower. h
115:    Is the number 7?
116:    Enter y if the guess is correct.
117:    Enter h if the computer should guess higher.
118:    Enter l if the computer should guess lower. h
119:    User was not truthful.
120:    -----
121:    Process exited after 6.015 seconds with return value 0
122:    Press any key to continue . . .
123: */
```