1. The output would be:

endlendl

endline

1. A diagonal line consisting of hashtags is printed and the length of the line is equal to the value of variable len inputted.
2. Code:

#include <iostream>

**using** **namespace** std;

**int** main()

{

**int** len;

cout << "Enter a number: ";

cin >> len;

**for** (**int** i = 0; i < len;i++)

{

**int** j= i+1;

**while**( j < len)

{

cout << " ";

j++;

}

cout << "#" << endl;

}

**return**( 0 );

}

4)

#include <iostream>

**using** **namespace** std;

**int** main()

{

**int** len;

cout << "Enter a number: ";

cin >> len;

**if** (len<=0)// to take care of the negative

{

}

**else**

{

**int** i = 0;

**do**

{

**int** j = i+1;

**while** (j < len)

{

cout << " ";

j++;

}

cout << "#" << endl;

i++;

} **while**(i < len);

}

}

4)

**switch** (weekday)

{

**case** 1:

cout << "rainy days and mondays get me down";

**break**;

**case** 2:

cout << "ruby tuesday";

**break**;

**case** 6:

cout << "wonderful weekend";

**break**;

**case** 7:

cout << "wonderful weekend";

**break**;

**default**:

cout << "regular day";

**break**;

}