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Maths Assignment #2

Steps to create the mario pyramid

1. Create a function called ‘create\_pyramid’ that takes the parameter for the height.

--- here

function create\_pyramid(integer height) {

}

1. Create the first loop where we make create the lines for the pyramid as shown below.

function create\_pyramid(integer height) {

--- here

For ( integer i = 1; i <= height; i++ ) {

}

}

1. We create another loop to print the space string to create the space to format the pyramid.

function create\_pyramid(integer height) {

For ( integer i = 1; i <= height; i++ ) {

--- here we subtract the height from interger variable ‘i’.

For (integer j = 0; j < height - i; j++) {

Output " ";

}

}

}

1. Then we create another loop under the first loop to output the “#” to create the pyramid.

function create\_pyramid(integer height) {

For ( integer i = 1; i <= height; i++ ) {

For (integer j = 0; j < height - i; j++) {

Output " ";

}

--- here we make sure that integer variable ‘j’ is always less than integer variable ‘i’

For (integer j = 0; j < i; j++) {

Output "#"

}

}

}

1. We use endline function to create a new line within the console.

function create\_pyramid(integer height) {

For ( integer i = 1; i <= height; i++ ) {

For (integer j = 0; j < height - i; j++) {

Output " ";

}

For (integer j = 0; j < i; j++) {

Output "#"

}

--- here is where we create a new line in the console for a new set of ‘#’

EndLine();

}

}

1. We then create a variable to input the height for the pyramid

interger height;

Output “Enter Height: “;

input height;

1. We then create a while loop to check if the height is less than 1 or more than 8.

While height < 1 or height > 8 {

Output “Height Must be between 1 – 8”;

Input height;

}

1. Once all the validation check has been passed, we then called the ‘create\_pyramid’ function to create the pyramid.

create\_pyramid(height)

NB: A C++ file is also provided for to test the code.