```
1: 1) Loops are used to repeat blocks of code.
2: 2) We have for loops and while loops.
3: 3) The following code repeatedly asks the user for input until the user provides a number 4: greater than 0.
5: 4)
6: a x k
6: a x k
7: 0 0 0
8: 2 20 40
8: 2 20 40
9: 4 40 80
                                                                                                                                                                                                                                       Note: I will accept both answers, answers for both version is shown below.
                                                                                                                                                                                                               But I forgot the brackets in xIdx+yIdx 2. So, it draws a 2 blue squares
                                                                                                                                                            It draws a set of rectangles that are 5px in width, with the starting
                                                                                                                                                                                                  Initially this was suppose to draw a checkerboard,
                                                                                                                                                                        points 10px apart. The length of each bar increases.
                                                                                                                                                                                                                                                                                                                  for(var xIdx = 0; xIdx < 4; xIdx = xIdx + 1){
   if(xIdx+yIdx % 2 ===0){</pre>
                                                                                                                                                                                                                                                                                                       24: for(var yldx = 0; yldx < 4; yldx = yldx + 1){
                                                                                                                                                                                                                                                                                                                                                                                                                                    ctx.fillRect(xoffset,yoffset,10,10);
                                                                                                                                                                                                                           and blacks squares everywhere else.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                black
black
black
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      black
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  black
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            black
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         blue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         color
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    blue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 black
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xIdx yIdx xoffset yoffset
                                                                                                                                                                                                                                                                                                                                                                                                            var yoffset = yIdx *10;
                                                                                                                                                                                                                                                                                                                                                                                                var xoffset = xIdx *10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
0
0
0
0
1
1
1
1
2
0
2
0
2
0
                                                                                                                                                                                                                                                                                                                                                                                                                        ctx.fillStyle = color;
                                                                                                                                                                                                                                                                                                                                              color = "blue";
                                                                                                                                                                                                                                                                                                                                                                      color = "black";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The correct version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10
20
30
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
20
30
                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                          else {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0000
                                                                                                                                                                                                                                                                 21: The the Code:
                                                                                                                     80
                                                                                                                                                                                                                                                                                         23: var color;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              36: }
                                                                                                                                                                                                                                                                                                                   25:
                                                                                                                                                                                                                                                                                                                                                                                                           32:
                                                                                                                                                                                                                                                                                                                                                                                                                       33:
                                                                                                                                                                                                                                                                                                                                                                                                                                                35:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38:
                                                                                                                                                                        14:
15:
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17:
18:
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                                                                                                                                                                                                                                                                                                                                                                                              31:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41:
42:
43:
                                                                                                                     10:
                                                                                                                                               12:
13:
                                                                                                                                                                                                                                        19:
                                                                                                                                                                                                                                                                             22:
                                                                                                                                                                                                                                                                                                                                                         28:
                                                                                                                                                                                                                                                                                                                                                                                   30:
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                                                                                                                                  11:
                                                                                                                                                                                                                                                    20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44:
```

```
//If you want to know to get this stringTotal, you can make a table //like for the questions above or you can use the debugger to
                                                                                        for(var xIdx = 0; xIdx < 4; xIdx = xIdx + 1){
   if((xIdx+yIdx) % 2 ===0){</pre>
                                                                                 60: for(var yIdx = 0; yIdx < 4; yIdx = yIdx + 1){
                                                                                                                                                            ctx.fillRect(xoffset,yoffset,10,10);
                                                                                                                                                                                                                                                                                                                                6)After the loops finishes executing
                                   black
       black
              black
                      black
                                                                                                                                                                                                         black
                                                                                                                                                                                                                       black
                                                                                                                                                                                                                                              black
                                                                                                                                                                                                                                                                     black
                                                                                                                                                                                                                                                                                                          black
black
                              black
                                                                                                                                                                                                                                black
                                                                                                                                                                                                                                                                                           black
                                                                                                                                                                                                                                                             blue
                                                                                                                                                                                                                                                                                    black
                                                                                                                                                                                                                 blue
                                                                                                                                                                                                                                       blue
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                                                                                                                                                                                                                                                                            blue
                                                                                                                                                                                                                                                                                                                  blue
                                                                                                                                                                                                  blue
                                                                                                                                                                                                                                                                                                   blue
                                                                                                                                                                                          xIdx yIdx xoffset yoffset
                                                                                                                                      var xoffset = xIdx *10;
var yoffset = yIdx *10;
                                                                                                                                                                                                  20
20
30
30
30
                                                                                                                                                    ctx.fillStyle = color;
                                                                                                                                                                                  73: The almost correct version
                                                                                                                      color = "black";
                                                                                                        color = "blue";
20
30
0
10
20
30
                                                                                                                                                                                                                                      10
20
30
                                                                                                                                                                                                                                                                                                                                       S] = "******
                                                                                                                else {
228888
                                                    56: For the code:
                                                           57: The the Code:
                                                                          59: var color;
                                                                                                                                                                                                  0 3 2 1 0 3 2 1 0
                                                                                                                                                                          72: }
                                                                                         61:
                                                                                                                                                    : 69
                                                                                                                                                                   71:
                                                                                                                                                                                                                                                     82:
                                                                                                                                                                                                                                                                     84:
                     52:
                                     54:
                                                                                                62:
                                                                                                        63:
                                                                                                                                      67:
                                                                                                                                             89
                                                                                                                                                            70:
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                                                                                                                                                                                                                                                            83:
                                                                                                                                                                                                                                                                            85:
                                                                                                                                                                                                                                                                                    86:
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                              53:
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                                                                                                                64:
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                                                                                                                               :99
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88
                                                                                                                                                                                                                                                                                                          : 68
                                                                                                                                                                                                                                                                                                                  :06
                                             55:
```

0

Wed Feb 17 02:41:21 2016

worksheet5answers.txt

//loop through the code to examine how the code changes.

It will display as a pyramid in HTML:

\*\*\*\*\* \*\*\*\* 97. 98. 100. 101. 102. 103. 104. 105. 106. 106. 107.

\*\*\*\*\* \*\*\*\*\*

\*\*\*\*\*\*\* \*\*\*\*\*\*