

Task #1a: Cookie Sales

You need to sell boxes of cookies for 10 days. Each day you sell a random number of cookie boxes (between 1 and 20 boxes). Use a while loop to generate 10 days of random cookie sales. Display the number of boxes sold each day.

```
Sold 18 boxes of cookies on day 1
Sold 19 boxes of cookies on day 2
Sold 17 boxes of cookies on day 3
Sold 16 boxes of cookies on day 4
Sold 12 boxes of cookies on day 5
Sold 14 boxes of cookies on day 6
Sold 11 boxes of cookies on day 7
Sold 10 boxes of cookies on day 8
Sold 5 boxes of cookies on day 9
Sold 8 boxes of cookies on day 10
```

```
Sold 12 boxes of cookies on day 1
Sold 6 boxes of cookies on day 2
Sold 5 boxes of cookies on day 3
Sold 16 boxes of cookies on day 4
Sold 10 boxes of cookies on day 5
Sold 6 boxes of cookies on day 6
Sold 17 boxes of cookies on day 7
Sold 5 boxes of cookies on day 8
Sold 2 boxes of cookies on day 9
Sold 6 boxes of cookies on day 10
```

Task #1b: Cookie Sales

You need to sell cookies until you reach the quota of 100 cookie boxes. Use a while loop to generate random daily cookie sales. Display the current day sales along with the total sales as shown in the sample executions below. Once the quota of 100 has been reached (or exceeded), inform the cookie seller they reached their quota.

```
Sold 15 boxes of cookies on day 1. Total sales: 15 boxes
Sold 19 boxes of cookies on day 2. Total sales: 34 boxes
Sold 16 boxes of cookies on day 3. Total sales: 50 boxes
Sold 2 boxes of cookies on day 4. Total sales: 52 boxes
Sold 6 boxes of cookies on day 5. Total sales: 58 boxes
Sold 14 boxes of cookies on day 6. Total sales: 72 boxes
Sold 19 boxes of cookies on day 7. Total sales: 91 boxes
Sold 17 boxes of cookies on day 8. Total sales: 108 boxes
Sales quota reached
```

Task #2a:

Use a while loop to generate 5 random temperatures in the range of 30 to 55. State whether the temperature is moderate (at least 45 degrees) or cold (below 45 degrees).

<pre>Moderate 47 Cold 32 Moderate 54 Cold 43 Cold 41</pre>	<pre>Cold 31 Moderate 45 Cold 44 Moderate 55 Cold 42</pre>
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Task #2b:

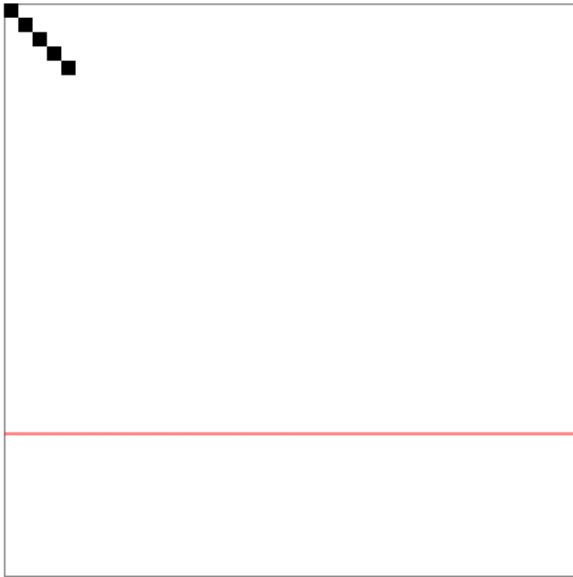
Our criteria for the start of spring is when the overnight temperature is moderate (at least 45 degrees) for **three nights in a row**. When that occurs, stop looping and announce that Spring has arrived.

<pre>Moderate 55 Cold 36 Moderate 51 Cold 36 Cold 37 Moderate 47 Cold 33 Cold 44 Cold 40 Cold 40 Moderate 49 Moderate 46 Cold 36 Cold 36 Moderate 55 Moderate 48 Moderate 51 Spring has arrived!</pre>	<pre>Cold 38 Moderate 49 Cold 38 Cold 37 Cold 31 Cold 43 Moderate 46 Cold 35 Moderate 51 Cold 30 Moderate 50 Moderate 46 Moderate 51 Spring has arrived!</pre>
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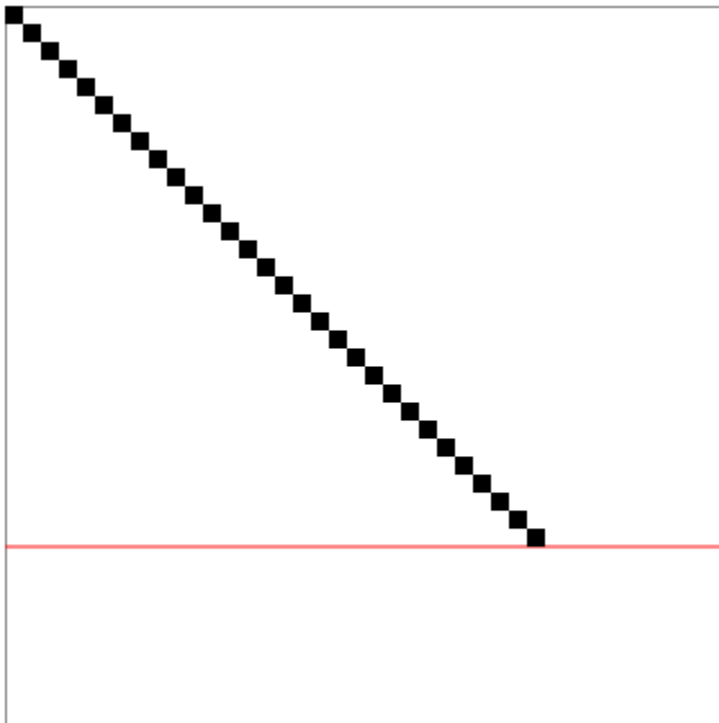
Task #3 Prompt the user to the number of nested parenthesis to display. Output on one line the specified number of left parenthesis followed by an equal number of right parenthesis. HINT: Use 2 loops. Recall you can suppress the newline character in the print function using the end parameter.

<pre>how many nested parenthesis?5 ((((()))))</pre>	<pre>how many matching parenthesis?10 ((((((((((((()))))))))))))</pre>
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Task #4a The existing code draws a red line and a small filled square in the upper left corner of the canvas. Update the code to use a while loop to draw a series of 5 squares as shown. Note your loop should adapt the x and y variables to prepare for the next square to be drawn.



Task #4b Copy the code from task4a to task4b. Use a loop to draw a sequence of squares while the top of the square is above the red line.



Task #4c Copy the code from task4b to task4c. Vary the vertical offset (y direction) of each new square a random amount between 10 and 20 pixels during each iteration of the loop.

