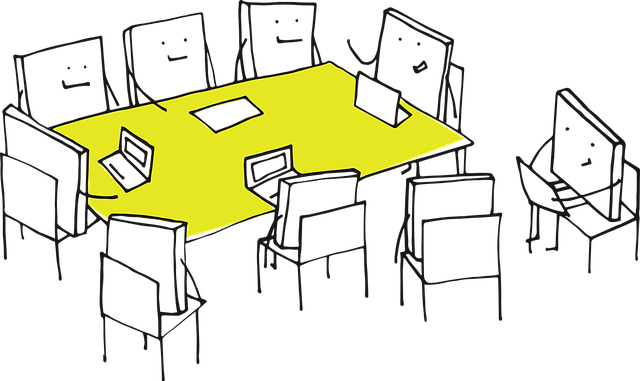
Plenary worksheet answers

Using this template populate a trace table for this program:



|  |  | Line | lollipops | treats | x |
| --- | --- | --- | --- | --- | --- |
| 1 | lollipops = 0 | 1 | 0 |  |  |
| 2 | treats = 5 | 2 | 0 | 5 |  |
| 3 | while treats>lollipops: | 3 | 0 | 5 |  |
| 4 | for x in range (treats): | 4 | 0 | 5 | 0 |
| 5 | lollipops = lollipops + 2 | 5 | 2 | 5 | 0 |
| 6 | treats = treats + 1 | 6 | 2 | 6 | 0 |
| 7 | print (lollipops, treats) | 4 | 2 | 6 | 1 |
|  |  | 5 | 4 | 6 | 1 |
|  |  | 6 | 4 | 7 | 1 |
|  |  | 4 | 4 | 7 | 2 |
|  |  | 5 | 6 | 7 | 2 |
|  |  | 6 | 6 | 8 | 2 |
|  |  | 4 | 6 | 8 | 3 |
|  |  | 5 | 8 | 8 | 3 |
|  |  | 6 | 8 | 9 | 3 |
|  |  | 4 | 8 | 9 | 4 |
|  |  | 5 | 10 | 9 | 4 |
|  |  | 6 | 10 | 10 | 4 |
|  |  | 7 | 10 | 10 |  |

**What is the output for the program?**

10 10

**Extension question:**

What could you change in the program so that the output gave the number of lollipops and treats at each iteration of the loop?

Answer: Put line 7 - print (lollipops, treats) inside the for loop by keeping it at the same indentation level as line 6. Then the output is:

2 6

4 7

6 8

8 9

10 10