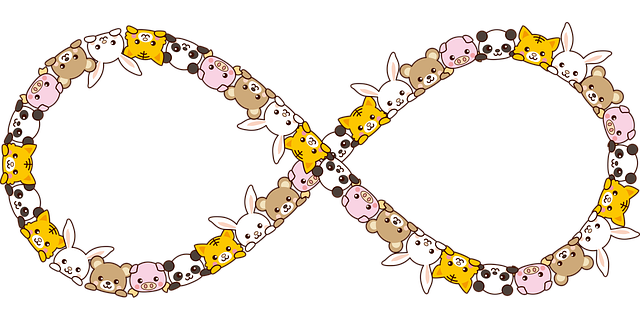
Starter worksheet answers

Circle the correct output for the following python program. Then write a brief explanation for your answer or circle “It was a guess”.

| Q1.    A - 5 (Wrong - right no. times but within loop)  B - 6 (Wrong - Still within loop, each iteration prints)  C - i (Wrong - not “i” which is a print statement of a string) this is i as a looper/variable. **D -**  **0**  **1**  **2**  **3**  **4**  **5 (Correct answer)** | Q2.    **A - 10 (Correct answer)**  B - total (Wrong - not “total” which is a print statement of a string) this is total the variable.)  C - 15 (Wrong - one extra iteration)  D -  0  1  3  6  10 (Wrong, the print statement is outside the loop so does not print the contents of variable at every iteration but just the end point) |
| --- | --- |
| **Explain your answer:**  The print statement is still within the for loop, which means that each of the iterations of the looper i need to be printed. The range function stops looping before a specified number, so in this case it stops before 6 i.e. 5.  **Or….It was a guess.** | **Explain your answer:**  The print statement is outside the loop so the total that prints to screen is the last version of total. Each time it goes round the loop you add x (i.e. the previous looper) to the running total.  **Or….It was a guess.** |

| Q3.    A - hamsters (Wrong, hamsters is a variable)  B - hamsters \*10 (Wrong, hamsters is a variable)  C - 20000 (Wrong, looped one too many times)  **D - 2000 (correct answer)** | Q4.    A - shells (Wrong, shells is a variable)  **B - 10 (correct answer)**  C - 1 (Wrong, count incorrect)  D - 8 (Wrong, count incorrect) |
| --- | --- |
| **Explain your answer:**  Unless specified, a for loop starts from 0 and ends before the top of the range. So this program runs like this:  0 - 2x10 = 20  1 - 20x10 = 200  2 - 200x10 = 2000  **Or….It was a guess.** | **Explain your answer:**  The flowers variable is greater than 1 initially so the shells variable goes up by 2 as the flowers reduces by 1.  Shells Flowers  2 5  4 4  6 3  8 2  10 1  (at this point the while loop stops)  **Or….It was a guess.** |

