Module 11 — More on lists and strings: Activities
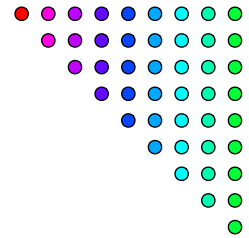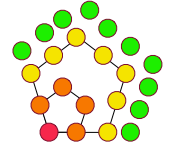
(1) Create a list of the first 100 triangular numbers. The triangular numbers
are 1, 1+2, 1+2+3, 1+2+3+4, 1+2+3+4+5, … . You should use a for loop
where you explicitly calculate the addend.

(2) Create a list of the first 100 pentagonal numbers. The pentagonal numbers
are 1, 1+4, 1+4+7, 1+4+7+10, …

(3) Implement twice a function that tests whether a string is a palindrome, such as "able was i
ere i saw elba". One implementation should use the test for equality for strings, the other
one should use comparison of individual characters. For the first one, you can generate the
reverse string as a slice.

(4) Implement a function `minus(listA, listB)` which returns a list of all elements in
`listA` that are <u>not</u> in `listB`.

(5) Implement a function that takes a string and replaces all consonants with a
consonant+'y'+consonant combination. For example, "`string`" becomes
"`systytryrinyngyg`".