1) Find the first 4 terms in the sequence $\{n^2 + 3\}_{n=0}^{\infty}$

$0^2 + 3 = 3$
$1^2 + 3 = 4$
$2^2 + 3 = 7$
$3^2 + 3 = 12$

2) Reindex the summation below so that the index starts at 0.

$$\sum_{i=3}^{6}(i+2)$$

For j to start at 0, it looks like $j + 3 = i$, so we re-index it using j's:

$$\sum_{i=3}^{6}(i+2) = 5 + 6 + 7 + 8 = \sum_{j=0}^{3}(j+5)$$

Check the terms, please! A lot of people easy point: if you're not getting the same numbers you did something wrong.

3) List all strings with alphabet $\{a, b, c\}$ with length 2.

"aa"
"ab"
"ac"
"ba"
"bb"
"bc"
"ca"
"cb"
"cc"

To double check yourself, note that there are 9 strings because there are 3 options for each character and $3 \times 3 = 9$.