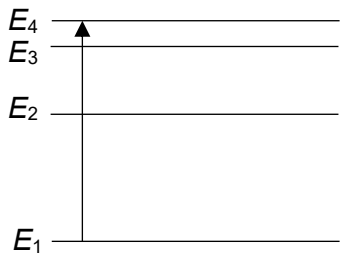
28 A beam of electrons of energy E excite atoms of element X from ground state E_1 to an excited state E_4 as shown.



element X

Photons emitted from element X interact with atoms of another element Y at their ground state. Three emission spectral lines are obtained from element Y.

The process is then repeated with atoms of element Y at ground state being excited by the same beam of electrons of energy E. Photons emitted from element Y now interact with atoms of element X at their ground state.

Which of the following is **not** a possible number of emission spectral lines obtained from element X following this interaction?

A 0 **B** 3 **C** 4 **D** 6