

- 2 The data in the table gives the 5th to the 10th ionisation energies of three elements from Period 3 of the Periodic Table.

element	ionisation energy / $\text{kJ mol}^{-1}$					
	5th	6th	7th	8th	9th	10th
X	6274	21 269	25 398	29 855	35 868	40 960
Y	7012	8 496	27 107	31 671	36 579	43 140
Z	6542	9 362	11 018	33 606	38 601	43 963

What are the correct identities of these three elements?

	element X	element Y	element Z
<b>A</b>	Na	Mg	<i>Al</i>
<b>B</b>	Mg	<i>Al</i>	Si
<b>C</b>	P	S	<i>Cl</i>
<b>D</b>	S	<i>Cl</i>	Ar