



1 Complete the table about these atoms and ions.

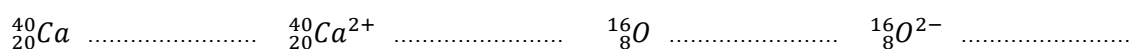
atom / ion	protons	neutrons	electrons	electron structure
${}_{17}^{37}\text{Cl}$				
${}_{17}^{37}\text{Cl}^{-}$				
${}_{12}^{26}\text{Mg}$				
${}_{12}^{26}\text{Mg}^{2+}$				

2 Complete the table to show what happens when these elements react together, or whether no reaction occurs.

elements	what happens			type of bonding (if reaction occurs)		type of compound (if reaction occurs)	
	no reaction	electrons shared	electrons transferred	covalent	ionic	molecular	ionic
sodium + iron							
bromine + sulfur							
iodine + zinc							
argon + magnesium							

3 Calcium atoms react with oxygen atoms in the ratio 1:1 to form calcium oxide.

a Give the electron structure of these atoms and ions.



b Explain why calcium atoms react with oxygen atoms.

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c Explain why calcium atoms react with oxygen atoms in the ratio 1:1.

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