Chapter 8 | ANSWER KEY

pg 264 #1 to 13 (and # atoms)
pg 267 # 14, 15
pg 268 #18, 19

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1. (d)

2. (a) Noble gases: He, Ne, Ar, Kr, Xe, Rn
(b) Halogens: F, Cl, Br, I, At
(c) Alkaline Earths: Be, Mg, Ca, Sr, Ba
(d) Alkali Metals: Li, Na, K, Rb, Cs, Fr

3. (c) 2+

4. (b) halogen

5. (d) calcium

6. He, Ne, Ar, Kr, Xe, Rn

7. same properties as A

8.

(a)	formula: NaCl	ions: (Na^{1+} Cl^{1-})
(b)	KCl	(K^{1+} Cl^{1-})
(c)	K_2O	(K^{1+} O^{2-})
(d)	MgO	(Mg^{2+} O^{2-})
(e)	Al_2O_3	(Al^{3+} O^{2-})
(f)	AlN	(Al^{3+} N^{3-})

9. (a) Fe^{3+}
(b) Ca^{2+}
(c) O^{2-}
(d) CO_3^{2-}
(e) NH_4^{1+}
(f) Br^{1-}

10. (a) NH_4F
(b) $(NH_4)_2S$
(c) $Mg(ClO_3)_2$
(d) $MgCO_3$
(e) $Mg_3(PO_4)_2$
(f) $AlPO_4$

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11. (a) $Cu(NO_3)_2$

(b) $CuNO_3$

(c) $FeCO_3$

(d) $Fe_2(CO_3)_3$

(e) $PbCl_4$

(f) PbF_2

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12. (a) Aluminum oxide

(b) calcium carbonate

(c) ammonium chloride

(d) iron (III) sulfide

(e) chromium (II) phosphate

(f) potassium hydroxide

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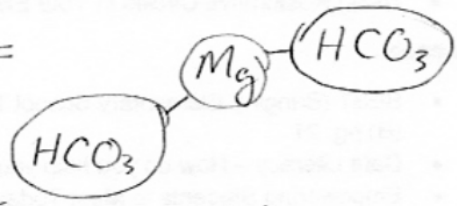
13. $Mg(HCO_3)_2$ =



the brackets show that all the atoms within the brackets are part of a polyatomic ion and there is more than one of that ion.

# of each type of atom in the molecule

Mg × 1

H × 2

C × 2

O × 6

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14. (d) $PbCl_4$

15. Sn^{2+} SO_4^{2-}

(a) $SnSO_4$

Mn^{4+} SO_4^{2-}

18. (a) NaF
(b) $Ca(OH)_2$
(c) $Al(NO_3)_3$
(d) $Mn(SO_4)_2$
(e) K_2O
(f) Pb_3P_2

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19. (a) ammonium hydroxide
(b) potassium sulfate
(c) potassium chloride
(d) manganese (II) oxide
(e) iron (III) chloride
(f) calcium phosphide