5. (a)
$$(A+B)(c+D+E)$$

= $AC+AD+AE+BC+BD+BE$

(b)
$$X(Y+z)(V+W)$$

= $X(YV+YW+zV+zW)$
= $XYV+XYW+XZV+XZW$

(c)
$$(X+Y) \neq XW + (X+Y)' \text{ and } X+Y \neq A \neq F = G$$

$$A \neq XW + A'$$

$$= (A+A') (\neq XW + A')$$

$$= 1 \cdot (\neq XW + (X+Y)')$$

$$= ZW + XY'$$