(1.7) Let $g,h \in G$ and $a \in G$.

(14) $g\cdot(h\cdot a) = g\cdot(ah) = ahg$

and $(gh)\cdot a = agh$

and if G is not abelian, then agh might not equal ahg.

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(15) Let $g,h,a \in G$. Then

$g\cdot(h\cdot a) = g\cdot(ah^{-1}) = ah^{-1}g^{-1}$

and $(gh)\cdot a = a(gh)^{-1} = ah^{-1}g^{-1}$.

Thus, $g\cdot(h\cdot a) = (gh)\cdot a$.

Also, $1\cdot a = a1^{-1} = a1 = a$.

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(16) Let $g,h,a \in G$. Then

$g\cdot(h\cdot a) = g\cdot(hah^{-1}) = ghah^{-1}g^{-1}$

$= (gh)a(gh)^{-1} = (gh)\cdot a$

and $1\cdot a = 1a1^{-1} = a$.