If each of the following pairs of expressions were denominators, determine the LCD:

1. $\quad 9(x+2)^{2}$ and $12 x(x+2)$
2. $14 x^{2}(x-1)^{2}$ and $21 x(x+1)$
3. $\quad 4 a^{3}(x-2)^{2}$ and $6 a^{2}(x-2)^{5}$
4. $8 x^{2}-72$ and $12 x^{2}-72 x+108$
5. $20 x^{7}+80 x^{6}+80 x^{5}$ and $80 x-5 x^{5}$
