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

1.
$$9(x+2)^2$$
 and $12x(x+2)$

2.
$$14x^2(x-1)^2$$
 and $21x(x+1)$

3.
$$4a^3(x-2)^2$$
 and $6a^2(x-2)^5$

4.
$$8x^2 - 72$$
 and $12x^2 - 72x + 108$

5.
$$20x^7 + 80x^6 + 80x^5$$
 and $80x - 5x^5$