Add and subtract the following rational expressions, as indicated, and simplify answers.

7. $\dfrac{5}{a} + \dfrac{3}{a-1}$

8. $\dfrac{3-4n}{n^2+3n-10} - \dfrac{2}{n+5}$

9. $\dfrac{x}{x^2-x-30} - \dfrac{1}{x+5}$

10. $\dfrac{x}{x^2-9} + \dfrac{3}{x(x-3)}$

11. $\dfrac{3}{p+1} + \dfrac{4}{2p-6} - \dfrac{p^2-5}{p^2-2p-3}$

Multiply and divide each of the following rational expressions as indicated, and give the result simplest form.

1. $\dfrac{8x-32}{x^3+x^2} \cdot \dfrac{x^5-x^4-2x^2}{4x^2-16x+16}$

2. $\dfrac{w^2+2w-3}{3w^2-w-2} \div (w+3)$

3. $\dfrac{40mn}{18r^2} \div \dfrac{25m^2n}{27r^2m}$

4. $\dfrac{k^2+5kn-6n^2}{2k^2} \cdot \dfrac{12k}{4k-4n}$

5. $\dfrac{x^2+8x+16}{c^2-6c+9} \div \dfrac{2x+8}{3c-9}$

6. $\dfrac{7x+7y}{y-x} \div \dfrac{21}{4x-4y}$