Worksheet #2: Multiplying & Dividing Rational Expression

Multiply or divide the rational expressions. Show work & factor when necessary. State non-permissible values.

1. $\frac{2x+6}{5x+10} \cdot \frac{x+2}{x^2+4x+3}$

2. $\frac{x^2-x-12}{3x-9} \div \frac{x-4}{12}$

3. $\frac{x^2-5x+4}{x^2} \div \frac{x-1}{x}$

4. $\frac{6}{x^2+9x+20} \cdot \frac{8x+40}{6x-12}$

5. $\frac{5x-15}{4x^2} \cdot \frac{x^3}{6x-18}$

6. $\frac{7x^2}{12x} \div \frac{14x^3}{48y^3}$

7. $\frac{x^2+5x-24}{2x+2} \div \frac{3x+24}{x^2-8x-9}$

8. $\frac{24x^3}{50x} \cdot \frac{30}{8x^2}$

9. $\frac{4x}{8x+8} \cdot \frac{x^2+8x+7}{8x^3}$

10. $\frac{6x-12}{x^2-9x+18} \cdot \frac{7x-21}{5x-10}$