Algebra 1   Name_____

Multiplying and Dividing Rational Expression   Date_____ Period____

Simplify each expression.

1) $\dfrac{x+3}{15x^2-40x+25} \cdot \dfrac{15x^2-40x+25}{4x^2}$

2) $\dfrac{15v^2+38v+24}{5v+6} \cdot \dfrac{v+6}{3v^2-8v-16}$

3) $\dfrac{3x^2+3x}{21x^2+9x} \cdot \dfrac{7x+3}{4}$

4) $\dfrac{1}{5n-8} \cdot \dfrac{5n^2+17n-40}{7}$

5) $\dfrac{3p+24}{15p^3+30p^2} \div \dfrac{p+8}{9p+18}$

6) $\dfrac{3x-21}{3} \div \dfrac{x^2-15x+56}{x^2+12x+35}$

7) $\dfrac{9x^2+36x}{35x-35} \div \dfrac{9x^2+36x}{14x-14}$

8) $\dfrac{n^2-13n+36}{4n^2-36n} \div \dfrac{3n-12}{4n^2+36n}$

9) $\dfrac{9x+45}{x^2+8x+15} \div \dfrac{1}{8x+24}$

10) $\dfrac{9n^3+18n^2}{14n^2-12n-32} \div \dfrac{9n+18}{14n^2-12n-32}$

11) $\dfrac{m+1}{2m^2-4m-48} \cdot \dfrac{4m^2+18m+8}{2m^2+19m+9}$

12) $\dfrac{56b^2+24b}{42b^2+18b} \cdot \dfrac{3}{3b-15}$