Problems 10.1.1/10.1.2 review worksheet

Multiply or divide each pair of rational expressions. Simplify the result. Assume the denominator is not equal to zero. → write the values that make denom = 0 for $x \neq$?

1. $\dfrac{x^2+5x+6}{x^2-4x} \cdot \dfrac{4x}{x+2}$

2. $\dfrac{x^2-2x}{x^2-4x+4} \div \dfrac{4x^2}{x-2}$

3. $\dfrac{x^2-16}{(x-4)^2} \cdot \dfrac{x^2-3x-18}{x^2-2x-24}$

4. $\dfrac{x^2-x-6}{x^2+3x-10} \cdot \dfrac{x^2+2x-15}{x^2-6x+9}$

5. $\dfrac{x^2-x-6}{x^2-x-20} \cdot \dfrac{x^2+6x+8}{x^2-x-6}$

6. $\dfrac{x^2-x-30}{x^2+13x+40} \cdot \dfrac{x^2+11x+24}{x^2-9x+18}$

7. $\dfrac{15-5x}{x^2-x-6} \div \dfrac{5x}{x^2+6x+8}$

8. $\dfrac{17x+119}{x^2+5x-14} \div \dfrac{9x-1}{x^2-3x+2}$

9. $\dfrac{2x^2-5x-3}{3x^2-10x+3} \cdot \dfrac{9x^2-1}{4x^2+4x+1}$

10. $\dfrac{x^2-1}{x^2-6x-7} \div \dfrac{x^3+x^2-2x}{x-7}$

11. $\dfrac{3x-21}{x^2-49} \div \dfrac{3x}{x^2+7x}$

12. $\dfrac{x^2-y^2}{x+y} \cdot \dfrac{1}{x-y}$

13. $\dfrac{y^2-y}{w^2-y^2} \div \dfrac{y^2-2y+1}{1-y}$

14. $\dfrac{y^2-y-12}{y+2} \div \dfrac{y-4}{y^2-4y-12}$

15. $\dfrac{x^2+7x+10}{x+2} \div \dfrac{x^2+2x-15}{x+2}$