Name Solutions Rational Expressions Operations Test Practice 9-8-17 Hour 1 2 3 4 5 6 7

1. $\frac{7}{20x}+\frac{4}{15x^3}=$

$$\frac{21x^2+16}{60x^3}$$

2. $\frac{7}{20x+80}-\frac{x+2}{7x+28}=$

$$\frac{-20x+9}{140(x+4)}$$

3. $\frac{8}{9x+18}-\frac{2x+3}{9x+27}=$

$$\frac{-2x^2+x+18}{9(x+2)(x+3)}$$

4. $\frac{8}{9x^2+18x-27}+\frac{2x+5}{18x^2+54x}=$

$$\frac{2x^2+19x-5}{18x(x+3)(x-1)}$$

5. $\frac{8}{2x^2+10x-12}+\frac{2x+5}{2x^2+12x}-\frac{x+4}{x^2+4x-12}=$

$$\frac{x^2-19x+10}{2x(x-1)(x-2)(x+6)}$$

6. $\dfrac{2x^2+7x+5}{3x^2+2x-1} \cdot \dfrac{3x^2-13x+4}{x^2-3x-4} =$

$\dfrac{2x+5}{x+1}$

7. $\dfrac{\dfrac{3x^2+10x-8}{2x^2+7x-4}}{\dfrac{x^2+6x+8}{2x^2+3x-2}} =$

$\dfrac{3x-2}{x+4}$

8. $\dfrac{2x^4-2x^3-12x^2}{2x^6-5x^5-3x^4} \cdot \dfrac{30x^6+5x^5-5x^4}{12x^4-12x^3-72x^2} \div \dfrac{3x^2-10x+3}{3x^2+5x-2} =$

$\dfrac{5(x+2)(3x-1)}{6(x-1)^2}$ or $\dfrac{5(x+2)(3x-1)}{6(x-1)(x-1)}$

9. $\dfrac{16x^2-16x+4}{12x^2-12x+3} \div \dfrac{2x^2+9x-5}{6x^2+27x-15} =$

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10. $\dfrac{4x^2+16x-20}{2x^2-50} \div \dfrac{8x^2+32x-40}{4x^3-16x^2-20x} \cdot \dfrac{2x^3-2x}{2x^3+12x^2+10x} =$

$\dfrac{x(x-1)(x+1)}{(x+5)^2}$ or $\dfrac{x(x-1)(x+1)}{(x+5)(x+5)}$