Classroom Problems for Intermediate Algebra #13

1) $\dfrac{x^2-4x-32}{3x^2-26x+16}\cdot\dfrac{6x^2-7x+2}{4x^2-1}\cdot\dfrac{4x^3-16x^2+64x}{6x^4+384x}$ $\qquad \dfrac{2}{3(2x+1)}$

2) $4x^3-8x^2=192x$ $\qquad 0,-6,8$

3) $2x^2=7x+6$ $\qquad \dfrac{7\pm\sqrt{97}}{4}$

4) $\dfrac{3xa-2x+3ya-2y}{3x^3+3x^2y+3xy^2}\div\dfrac{5x^2-5y^2}{3x^3-3y^3}$ $\qquad \dfrac{3a-2}{5x}$

5) $12x^2-11x=15$ $\qquad \dfrac{5}{3},\dfrac{-3}{4}$

6) $(5x-1)(2x+3)=11$ $\qquad -2,\dfrac{7}{10}$

7) $\dfrac{12x^2-19x+4}{9x^2-16}\div\dfrac{8x^2+18x-5}{3x^2-5x-12}\cdot\dfrac{12x^3+18x^2-30x}{4x^3-16x^2+12x}$ $\qquad \dfrac{3}{2}$

8) $\dfrac{18x^3ya^2}{24x^3y^3a}\cdot\dfrac{98x^3y^4}{64xy^3}\div\dfrac{343x^4y^2a^5}{16x^2y^3a^4}$