8. x=real numbers

10. t $\neq$ -2   12. x >1

14. x $\geq$ 0

*(x $\neq$ -1 isn't necessary since it
is already excluded from x $\geq$ 0)*

Factor and Simplify

34. $\dfrac{2x+1}{2x^2+x-15} \div \dfrac{6x^2-x-2}{x+3}$ $= \dfrac{2x+1}{2x^2+x-15} \cdot \dfrac{x+3}{6x^2-x-2}$

$= \dfrac{(2x+1)}{(2x-5)(x+3)} \cdot \dfrac{(x+3)}{(2x+1)(3x-2)}$

$= \boxed{\dfrac{1}{(2x-5)(3x-2)}}$

Simplify using a common denominator:

40. $\dfrac{3x-2}{(x+1)} - 2 \dfrac{(x+1)}{1(x+1)} = \dfrac{3x-2-2x-2}{x+1}$

$\dfrac{3x-2}{x+1} - \dfrac{2(x+1)}{x+1} = \boxed{\dfrac{x-4}{x+1}}$

Simplify using a common denominator:

46. $\dfrac{x}{(x+1)^2} + \dfrac{2\,(x+1)}{(x+1)\,(x+1)}$

$$= \dfrac{x + 2x + 2}{(x+1)^2} = \boxed{\dfrac{3x+2}{(x+1)^2}}$$

R E M I N D E R S

- Check odd answers as you progress through the assignment.

- If something is incorrect, try to find your error and fix it…or ask someone how they solved the problem.

- Homework (written and online) is graded on completion and is worth 5 points per assignment.

- Late work is not accepted unless you come in during tutorial to finish it. Two late assignments per unit allowed.