# EOC Review #6

## Rationals

- simplify → factor numerator & denominator & cancel out factors

$$\frac{x^2+5x+6}{x^2-2x-8} =$$

- multiply/divide → factor & cancel
  - ↳ multiply by the reciprocal!

$$\frac{x+2}{x-8} \cdot \frac{x^2-5x-24}{x^2+7x+10} =$$

$$\frac{2x^2-5x-3}{x+7} \div \frac{2x+1}{x^2+3x-28} =$$

- add/subtract → get a like denominator & combine like terms in the numerators

$$\frac{7}{x+1} + \frac{x}{x-3} =$$

$$\frac{x+1}{2x+2} - \frac{8x}{2} =$$

- solving → get like denominators, cancel denominator & solve

$$\frac{4x-37}{3} = \frac{10}{x}$$

---

JUST REMEMBER THAT YOU CANNOT DIVIDE BY ZERO!

$$\frac{7x}{x^2+11x+21}$$

what x-valve can you not divide by?