

# CHAPTER REVIEW

## 6.1 – Simplifying Fractions

Simplify the following AND state any restrictions.

$$1) \frac{5y + 30}{y^2 - 36}$$

$$2) \frac{a^2 - 3a - 10}{a^2 - 4}$$

## 6.2 – Multiplying Fractions

Simplify the following

$$3) \frac{x^2 + x - 12}{x^2 + 5x} \bullet \frac{x^2 - 25}{x - 3}$$

## 6.3 – Dividing Fractions

$$4) \frac{x^2 + x - 20}{5x + 25} \div \frac{x^2 - 4x - 5}{x^2 - 25}$$

## 6.4 – Least Common Multiple

$$5) \quad 2y - 4, \quad y^2 - 4$$

- IF POSSIBLE FACTOR THEM OUT!!!!
- Find the LCM of the coefficients
- Find the bigger power of common factors (either variables or binomials)
- Add in also the uncommon factors

## 6.5 – Adding and Subtracting Fractions

$$6) \quad \frac{2n}{n^3 - 5n^2} + \frac{2}{n^2 + 5n}$$

## 6.6 – Mixed Expressions

Write each expression as a single fraction in simplest form:

$$7) \quad 2a^2 - \frac{a-1}{2a+5}$$

## 6.7 – Polynomial Long Division

$$8) \quad \frac{n^3 - 2n^2 + n + 2}{n+2} \rightarrow n+2 \overline{) n^3 - 2n^2 + n + 2}$$