

PreCalculus 11
Unit 6 Assignment

Name _____

Block _____

Simplify each and state the non permissible values.

1) $\frac{-15r^3 + 168r^2 - 180r}{4r^2 - 32r - 80}$

2) $\frac{3n - 3}{8n} \cdot \frac{1}{n^2 - 7n + 6}$

3) $\frac{35x^2 - 11x - 6}{20x + 28} \div \frac{6 + 11x - 35x^2}{5x^2 + 22x + 21}$

Simplify each expression and state the non permissible values.

$$4) \frac{x - 5y}{6x^2} - \frac{x + 5y}{6x^2}$$

$$5) \frac{8k}{k - 6} + \frac{3}{k + 5}$$

Solve each equation. Remember to check for extraneous solutions. Leave your answer as a fraction if necessary.

$$6) \frac{x - 6}{x^2 + 4x - 21} = \frac{4}{3x^2 + 12x - 63} + \frac{3}{x + 7}$$

$$7) \frac{1}{x-1} = \frac{1}{3x^2-3x} - \frac{x-7}{3x}$$

$$8) \frac{n^2+6n-16}{n^3+n^2} - \frac{1}{n} = \frac{2}{n^2+n}$$