

NAME: _____ DATE: _____ HOUR: _____

Section 8.6 Inequalities Practice

Solve each inequality. Check your solutions.

1) $\frac{1}{3v} + \frac{1}{4v} < \frac{1}{2}$

2) $\frac{7}{a+1} > 7$

3) $\frac{10}{m+1} > 5$

4) $5 + \frac{1}{y} > \frac{16}{y}$

5) $7 - \frac{2}{b} < \frac{5}{b}$

6) $1 + \frac{5}{x-1} \leq \frac{7}{6}$

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Solving Rational Expressions

Solve each equation.

$$1) \frac{1}{24n^2} = \frac{1}{12n^2} + \frac{1}{n}$$

$$6) \frac{3}{x-6} - \frac{1}{x^2-10x+24} = \frac{1}{x-6}$$

$$2) \frac{1}{s} = \frac{4}{9s} + 8$$

$$7) \frac{1}{x+9} + \frac{1}{x^2+x-72} = \frac{2}{x+9}$$

$$3) \frac{y-2}{22y^2} + \frac{10}{11y^2} = \frac{y+8}{11y^2}$$

$$8) 8 + \frac{x^2-9x}{2x} = \frac{x-9}{2x}$$

$$4) \frac{1}{p} + \frac{3p-5}{p^2-8p} = \frac{6p+12}{p^2-8p}$$

$$9) \frac{1}{12d^2} = \frac{1}{6d^2} - \frac{1}{d}$$

$$5) \frac{1}{b^2} = \frac{1}{25}$$

$$10) \frac{1}{r} = \frac{3}{11r} + 8$$