

EXERCISE A

SECTION 9-5 INEQUALITIES

Name the undefined values for each inequality. DO NOT SOLVE.

1) $\frac{8}{x} > \frac{3x+2}{x-10} + \frac{9}{4x+3}$

$x \neq$ _____

2) $\frac{17}{3x-15} \leq \frac{1}{x^2-25}$

$x \neq$ _____

Solve each inequality.

3) $\frac{4}{c+2} > 1$

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

5) $\frac{3}{2x} - \frac{2}{x} > \frac{1}{4}$

6) $\frac{1}{x} \geq 4x$

7) $\frac{3}{a+1} \geq 3$

8) $\frac{6}{x^2-4} + \frac{1}{x-2} \leq \frac{5}{3x-6}$

EXERCISE B

Name the undefined values for each inequality. DO NOT SOLVE.

9) $\frac{3}{8x+5} < \frac{x+1}{x-2}$

$x \neq$ _____

10) $\frac{1}{4q^2+6q} - 11 \geq \frac{2}{2q^2-9q-18}$

$q \neq$ _____

Solve each inequality.

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

12) $5 + \frac{1}{x} \geq \frac{16}{x}$

13) $\frac{2}{3y} + \frac{5}{6y} > \frac{3}{4}$

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

15) $\frac{x}{x+3} \leq \frac{x-3}{8}$

16) $\frac{3}{x^2-1} + 1 \geq \frac{2}{x-1}$

KEY

1) 0, 10, -3/4

3) $-2 < c < 2$

5) $-2 < x < 0$

7) $-1 < a \leq 0$

9) $-5/8, 2$

11) $-1 < a < 0$

13) $0 < y < 2$

15) $-3 < x \leq -1$ or $x \geq 9$