Solve each pair of simulataneous inequalities for the unknown.

1) $1 - v < 5v + 1 \leq 2v + 1$

2) $2n - 5 < 5n + 4 < 4n + 5$

3) $2x - 2 < 3x - 5 \leq 2x + 3$

4) $2 - 4a < 4 - 2a \leq 4 - 5a$

5) $5 - x > -5 - 3x > 5 + 2x$

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

7) $2a + \frac{3}{2} < \frac{1}{3}a + \frac{5}{4} \leq \frac{4}{5}a + \frac{7}{5}$

8) $n + \frac{9}{5} \leq \frac{1}{4}n - \frac{1}{3} < \frac{1}{3}n + \frac{8}{3}$

Answers to 12-05-02-T

1) No solution.

2) $-3 < n < 1$

3) $3 < x \leq 8$

4) $-1 < a \leq 0$

5) $-5 < x < -2$

6) $-\frac{2}{15} \leq x \leq \frac{24}{19}$

7) $-\frac{9}{28} \leq a < -\frac{3}{20}$

8) $-36 < n \leq -\frac{128}{45}$