Solve each pair of simulataneous inequalities for the unknown.

1) $2k + 1 < 5 + 3k < k + 1$

2) $-2a + 3 < 2a + 3 < a + 4$

3) $x - 2 \leq 2x + 1 \leq 4 + x$

4) $2p + 4 \leq 5p - 5 \leq 2p + 4$

5) $2n - 3 < 2n + 2 < 3n - 1$

6) $1 + \frac{1}{4}r < 1 + \frac{3}{2}r < \frac{1}{2}r + \frac{5}{4}$

7) $-1 + \frac{1}{2}m < \frac{7}{5}m + \frac{7}{4} \leq \frac{3}{4}m + \frac{9}{4}$

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

Answers to 12-05-03-T

1) $-4 < k < -2$

2) $0 < a < 1$

3) $-3 \leq x \leq 3$

4) $p = 3$

5) $n > 3$

6) $0 < r < \frac{1}{4}$

7) $-\frac{55}{18} < m \leq \frac{10}{13}$

8) $-\frac{16}{85} < x < \frac{57}{200}$