Solve each pair of simulataneous inequalities for the unknown.

1) $m - 3 < 5 - m \leq 3m + 1$

2) $3n - 4 \leq 4 + 2n < 1 + 3n$

3) $-3x + 1 \leq -5 + 3x \leq 2x - 3$

4) $3 - 2p < 2p - 5 < p - 2$

5) $3m - 5 \leq 5 - 2m \leq -4 + m$

6) $2 + \frac{1}{2}a \leq -\frac{4}{3}a + \frac{1}{3} < -\frac{1}{2}a + \frac{7}{3}$

7) $\frac{4}{5}x + \frac{1}{4} < \frac{7}{4}x - \frac{13}{4} < 2 - \frac{3}{2}x$

8) $\frac{5}{2}b - \frac{5}{2} \leq \frac{7}{5}b + \frac{5}{2} \leq \frac{1}{2}b + \frac{4}{5}$

Answers to 12-05-08-T

1) $1 \leq m < 4$

2) $3 < n \leq 8$

3) $1 \leq x \leq 2$

4) $2 < p < 3$

5) No solution.

6) $-\frac{12}{5} < a \leq -\frac{10}{11}$

7) No solution.

8) $b \leq -\frac{17}{9}$