

Solve each pair of simultaneous inequalities for the unknown.

1) $3 - 2n > -n - 3 \geq 3 - 3n$

2) $5m - 4 < -5m - 4 \leq -4m + 1$

3) $-4r - 5 < r + 5 < 5 - 3r$

4) $-5 + 5x < 2x + 1 \leq 4x - 1$

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

6) $k - \frac{6}{5} < -2 - \frac{10}{3}k \leq 2 + \frac{3}{4}k$

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

8) $2x + \frac{1}{4} \leq -x - \frac{13}{4} < -\frac{14}{5}x - \frac{17}{5}$

Answers to 12-05-09-T7

1) $3 \leq n < 6$

5) $n < 0$

2) $-5 \leq m < 0$

6) $-\frac{48}{49} \leq k < -\frac{12}{65}$

3) $-2 < r < 0$

7) $\frac{81}{64} \leq p < \frac{198}{35}$

4) $1 \leq x < 2$

8) $x \leq -\frac{7}{6}$