7. Solve the inequalitie $-3 \leqslant 6-7x \leqslant 3$
express your solution sets using interval notation.

$(\frac{3}{7}, \frac{9}{7})$

$(-\infty, \frac{3}{7}) \cup (\frac{9}{7}, +\infty)$

$[\frac{3}{7}, \frac{9}{7}]$

$(-\infty, \frac{3}{7}] \cup [\frac{9}{7}, +\infty)$

Solution

Intervals

Solve:

$|6-7x|+3 \leq 6$

$|6-7x| \leq 3$

$-3 \leqslant 6-7x \leqslant 3$

$-3-(6) \leqslant -7x \leqslant 3-(6)$

$-9 \leqslant -7x \leqslant -3$

Divide each side by -7 and flip the inequalities

$|6-7x|+3 \leq 6$

$\frac{3}{7} \leq x \leq \frac{9}{7}$