7. Solve the inequalitie $-6 \leqslant 10 - 10x \leqslant 6$
express your solution sets using interval notation.

$(\frac{2}{5}, \frac{8}{5})$

$(-\infty, \frac{2}{5}) \cup (\frac{8}{5}, +\infty)$

$[\frac{2}{5}, \frac{8}{5}]$

$(-\infty, \frac{2}{5}] \cup [\frac{8}{5}, +\infty)$

Solution

Intervals

Solve:

$|10 - 10x| + 4 \leq 10$

$|10 - 10x| \leq 6$

$-6 \leqslant 10 - 10x \leqslant 6$

$-6 - (10) \leqslant -10x \leqslant 6 - (10)$

$-16 \leqslant -10x \leqslant -4$

Divide each side by -10 and flip the inequalities

$|10 - 10x| + 4 \leq 10$

$\frac{2}{5} \leq x \leq \frac{8}{5}$