5. Solve the inequalities $|4-5x|+3 \leq 7$
express your solution sets using interval notation.

$(0, \frac{8}{5})$

$(-\infty, 0) \bigcup (\frac{8}{5}, +\infty)$

$[0, \frac{8}{5}]$

$(-\infty, 0] \bigcup [\frac{8}{5}, +\infty)$

Solution

Intervals

Solve:

$|4-5x|+3 \leq 7$

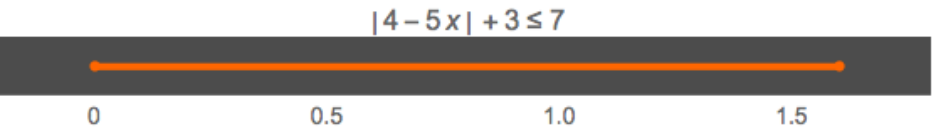
$|4-5x| \leq 4$

$-4 \leqslant 4-5x \leqslant 4$

$-4-(4) \leqslant -5x \leqslant 4-(4)$

$-8 \leqslant -5x \leqslant 0$

Divide each side by -5 and flip the inequalities



$0 \leq x \leq \frac{8}{5}$