4. Solve the inequalities $|1-4x|+1<7$
express your solution sets using interval notation.

$[-\frac{5}{4},\frac{7}{4}]$

$(-\infty,-\frac{5}{4})\cup(\frac{7}{4},+\infty)$

$(-\frac{5}{4},\frac{7}{4})$

$(-\infty,-\frac{5}{4}]\cup[\frac{7}{4},+\infty)$

Solution

Intervals

Solve:

$|1-4x|+1<7$

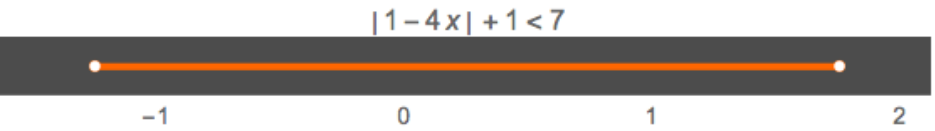
$|1-4x|<6$

$-6<1-4x<6$

$-6-(1)<-4x<6-(1)$

$-7<-4x<5$

Divide each side by -4 and flip the inequalities



$-\frac{5}{4}<x<\frac{7}{4}$