8. Solve the inequalities $|8x-3|+3<9$
express your solution sets using interval notation.

$[-\frac{3}{8},\frac{9}{8}]$

$(-\infty,-\frac{3}{8})\cup(\frac{9}{8},+\infty)$

$(-\frac{3}{8},\frac{9}{8})$

$(-\infty,-\frac{3}{8}]\cup[\frac{9}{8},+\infty)$

Solution

Intervals

Solve:

$|8x-3|+3<9$

$|8x-3|<6$

$-6<8x-3<6$

$-6-(-3)<8x<6-(-3)$

$-3<8x<9$

Divide each side by 8

$|8x-3|+3<9$

$-\frac{3}{8}<x<\frac{9}{8}$