



Problem:

Find the domain of function $y = \sqrt{35 - |3x - 11|}$.

Solution:

The function is defined when

$$35 - |3x - 11| \geq 0 \Rightarrow |3x - 11| \leq 35 \Rightarrow -35 \leq 3x - 11 \leq 35 \Rightarrow -24 \leq 3x \leq 46 \Rightarrow -8 \leq x \leq \frac{46}{3}$$

$\Rightarrow$ the domain will be $\left[-8; \frac{46}{3}\right]$.

Answer: $\left[-8; \frac{46}{3}\right]$.