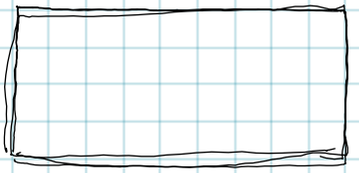
* You need to enclose a rectangular garden with 148 feet of fence. If the width of the garden is 8 feet less than the length, find the dimensions of the garden.



enclosed with 148 ft

Perimeter = 148

width is 8 less than length

width = length − 8

let l = length then width = $l-8$

width = 41 − 8

Perimeter = 148

$2w + 2l = 148$ ← use $l-8$ for w

$2(l-8) + 2l = 148$

$2l - 16 + 2l = 148$

$4l - 16 = 148$

$+16 \quad +16$

$\frac{4l}{4} = \frac{164}{4}$

$l = 41$ ft

$w = 33$ ft

$4\overline{)164}$ → 41, 16, 04, 4, 0

$41 - 8 = 33$