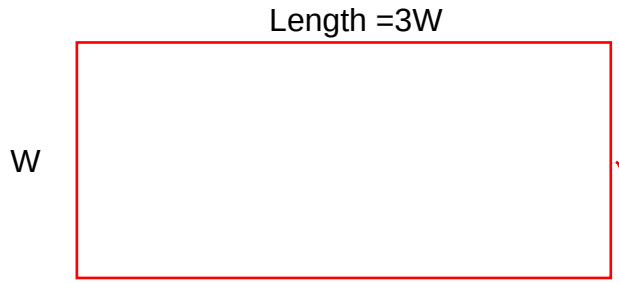
APPROVED

Name _____ Date _____

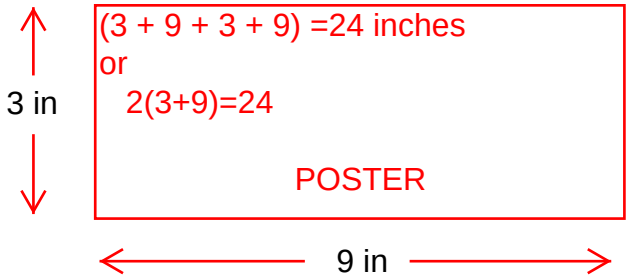
Solve the following problem. Use pictures, numbers, or words to show your work.

A rectangular poster is 3 times as long as it is wide. A rectangular banner is 5 times as long as it is wide. Both the banner and the poster have perimeters of 24 inches. What are the lengths and widths of the poster and the banner?

Well, I know it's a rectangle so first thing I do is draw a rectangle. Now it says it's 3 times as long as it is wide, so if one side is "wide" then the adjacent side must be 3 X "wide". I'll call "wide" "W". So, one side is W and the other side is 3W.



The perimeter is W + 3W + W + 3W and that would equal 8W.
The perimeter is 8 widths and it says it is 24 inches sooooo... 8W = 24 oh, W must be 3 inches because 8 x 3 is 24. I'm not done yet. If W is 3 inches then the length is 3 times W which mean 3x3=9 the length is 9 inches



That is a tiny poster!

Now the next one will be easy. We have a "W" and the other side is 5 times as long so "5W"

Length = 5W

W

Perimeter = (W + 5W) x 2 so that's 6W x 2 = 12W (that was two of the widths and two of the lengths) so 12W = 24 soooo W must be 2 inches. That makes the length 5 times longer than 2 or 10 inches.
Check the perimeter: 2+10+2+10=24 inches