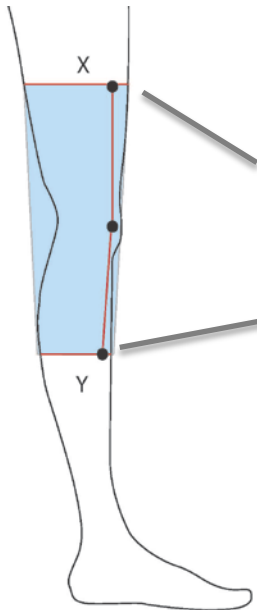# Creating your pant leg!

Measure around your subject's thigh at the top dot, 7" up from their knee, this will be length X.
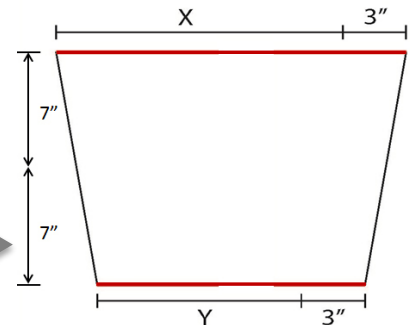
Measure around your subject's calf at the bottom dot, 7" down from their knee, this will be length Y.

Measurements:

Thigh Measurement (X) = _____

Calf Measurement (Y) = _____

Draw your pant leg on the fabric (Tyvek). It should look like this.

Next come up with ideas for allowing wearer mobility in your pant leg. You will see some sample solutions; see if you can find different ways to permit movement.
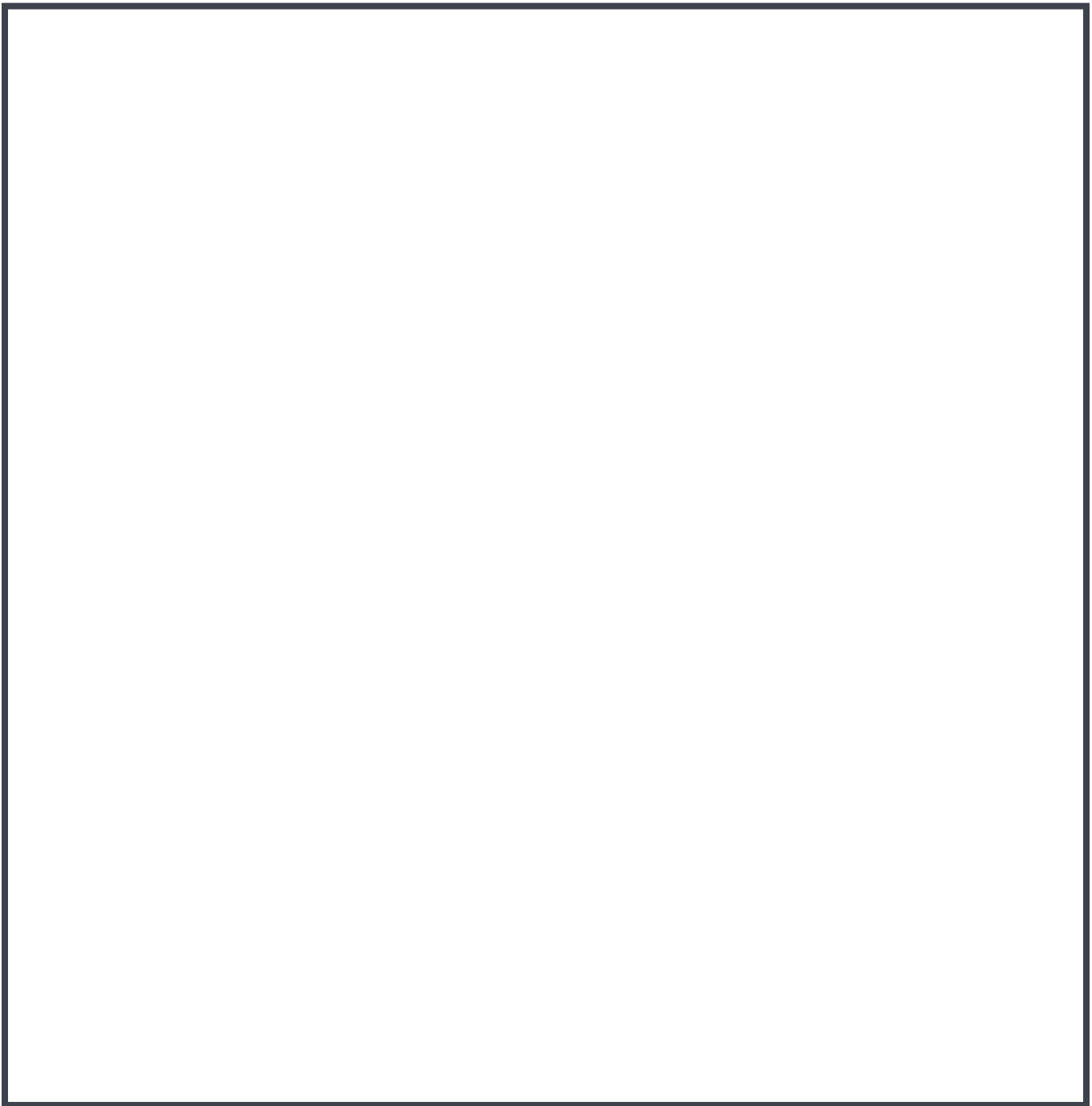
Concentrate on this part of the pant, as this is the part of the leg where you need the most movement. Insert your solution into the pant leg by slitting the front or the back.
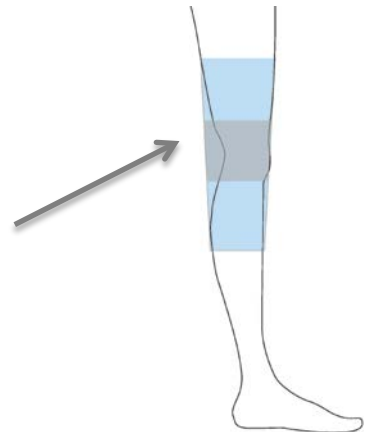
Design Sketches

Use this space to sketch or describe ideas to allow your subject's knee to bend comfortably.

Ranking Mobility Challenge

Use the step ladder (or stairs) to test mobility in your design. While standing on the floor, see which is the highest step you are able to reach on the ladder with the wrapped leg. The higher the step, the greater the level of mobility achieved!

Our design reached _____ steps!

What are some of the design solutions you tried? _____
_____
_____
_____

What worked, why and why not?

_____
_____
_____
_____
_____

**The ideas you generated answered the
"What are some ideas to fix the problem?"
of the Engineering Design Process!**

Good Job!