

How long is the bar?

A land based windsurfer is being constructed by affixing a mast and sail to a skateboard. The sail has a bar fixed to the side of the mast and going across the sail as shown in black in the diagram.

The sail is a right angled triangle with a base of 1m and the length of the hypotenuse is 2m. The bar starts at the vertex of the sail as shown and meets the hypotenuse at right angles.

Find the length of the bar.

