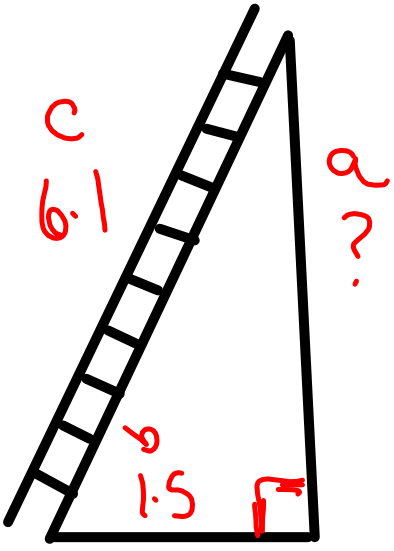
Real Life Square Roots!!

A ladder is 6.1 m long.

The distance from the base of the ladder to the wall is 1.5 m.

Calculate how far up the wall the ladder will reach.



$a^2 = c^2 - b^2$

$a^2 = 6.1^2 - 1.5^2$

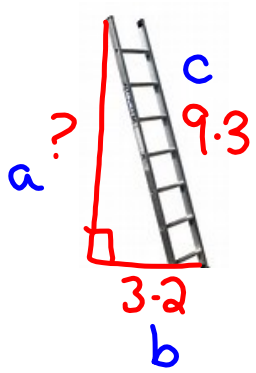
$a^2 = 37.21 - 2.25$

$\sqrt{a^2} = \sqrt{34.96}$

$a = 5.9$

2.

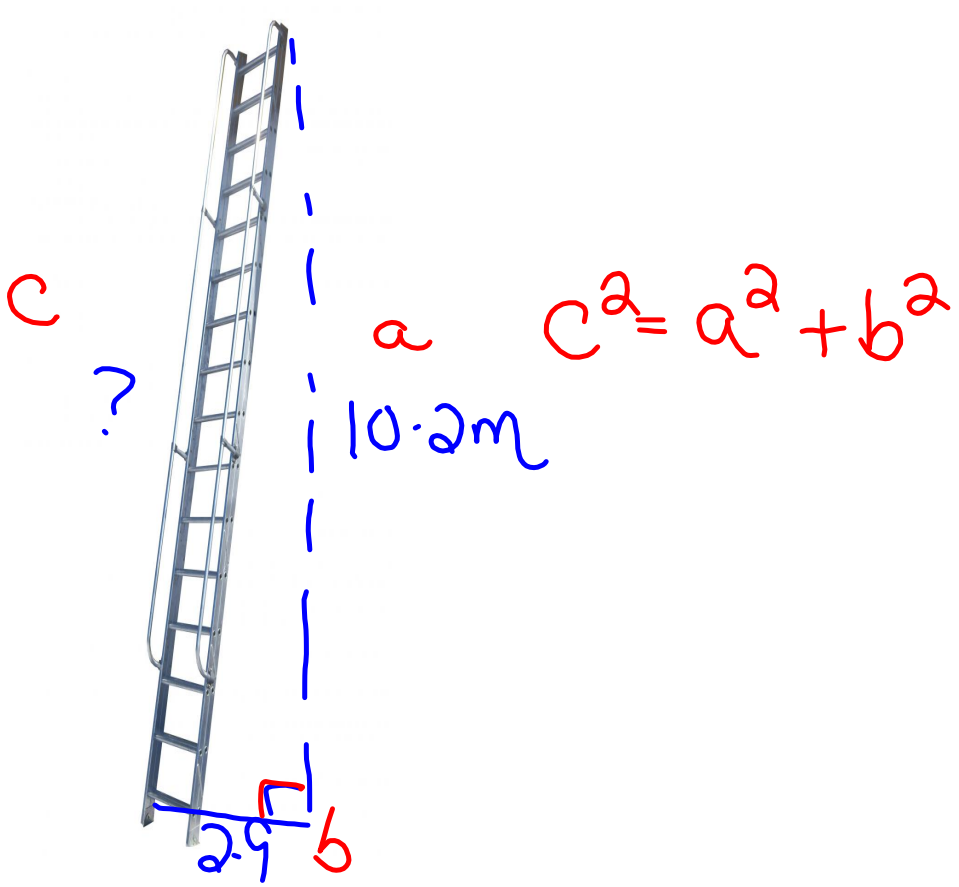
A ladder is 9.3m long. The distance from the base of the ladder to the wall is 3.2 m. Calculate how far up the wall the ladder will reach.



$a^2 = c^2 - b^2$

3.

The distance a ladder is from the base of the wall is 2.9 m. If the ladder will reaches 10.2 m up the wall, how long is the ladder?



4.

The distance a ladder is from the base of the wall is 2.5 m. If the ladder is 7 m long, c alculate how far up the wall the ladder will reach.

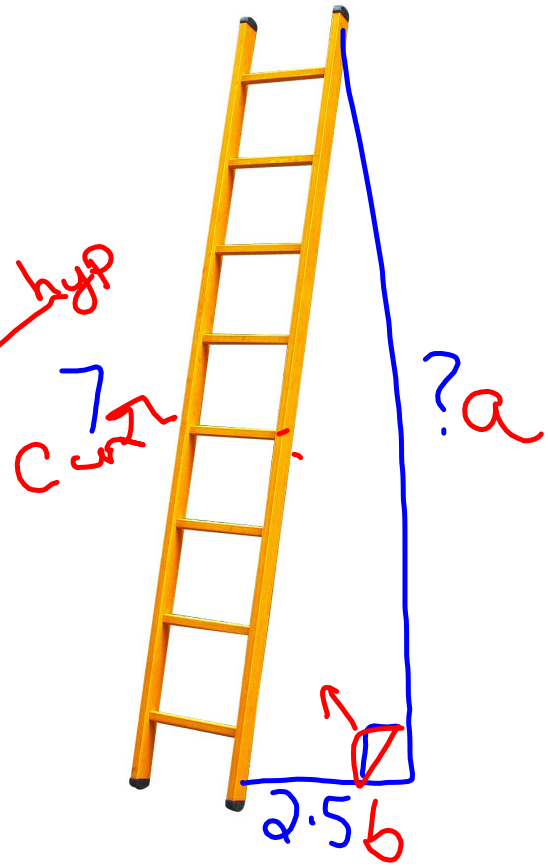
$a^2 = c^2 - b^2$

$a^2 = 7^2 - 2.5^2$ hyp

$a^2 = 49 - 6.25$

$\sqrt{a^2} = \sqrt{42.75}$

$a = 6.5$



5.

A ladder is 6.1 m long. The distance from the base of the ladder to the wall is 1.5m. Calculate how far up the wall t he ladder will reach.