Algebra I
11-6
Pythagorean Theorem
Word Problems

Solve. Make a sketch for each problem.
Round answers to the nearest hundredth.

*1) A 15 foot long ladder leans up against the side of a house. The base
of the ladder is 4 feet from the bottom of the house. How far up the
wall does the ladder reach? $\boxed{14.46'}$

$$a^2 + b^2 = c^2$$
$$(4)^2 + b^2 = (15)^2$$
$$-16 + 16 + b^2 = 225 - 16$$
$$\sqrt{b^2} = \sqrt{209}$$
$$|b| = 14.46$$