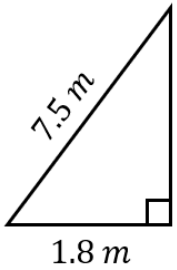
Pythagoras' Theorem Worded Problems

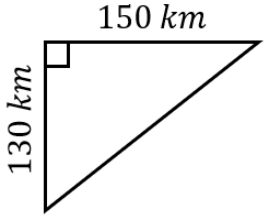
(a)

A ladder which is 7.5 m long, leans against a wall. The foot of the ladder is 1.8 m from the foot of the wall. How far up the wall does the ladder reach to 1 decimal place?



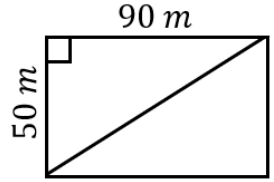
(b)

A ship sails 150 km west, then turns and sails 130 km south. How far from its original position is the ship now, to the nearest km?



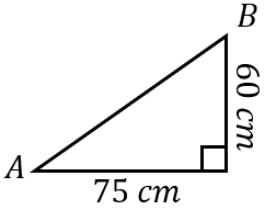
(c)

A football pitch is 90 m by 50 m. Find the length of the diagonal of the pitch to 1 decimal place.



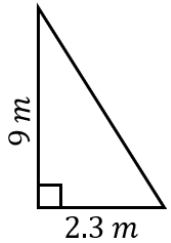
(d)

A snail starts at point A and travels 75 cm east and then 60 cm north to point B. Find the direct distance from A to B.



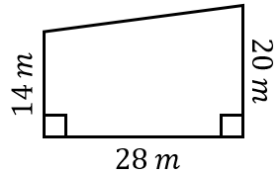
(e)

A ladder leans against a wall. The foot of the ladder is 2.3 m from the foot of the wall, and the ladder reaches 9 m up the wall. How long is the ladder, to 1 decimal place?



(f)

A farmer has a field in the shape of a trapezium, as shown. He wants to put a fence all the way around the field. How long will the fence need to be, to 1 decimal place?



(g)

A netball pitch is 15 metres wide and 30 metres long. Find the length of the diagonal to 1 decimal place.

(h)

A bird flies from its nest 2 km due north, then 3.5 km due east. Find the distance of the bird from its nest after its flight.

(i)

A ladder of length 8.2 m leans against a wall. The ladder reaches 6.9 m up the wall. How far is the foot of the ladder from the foot of the wall?