

Name _____

Date _____

Pythagorean Theorem Word Problems - Step-by-Step Lesson

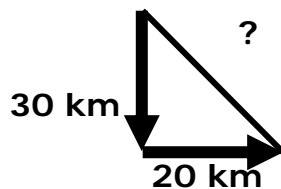
John rides his bike 30 km south and then 20 km east.

How far is he from his starting point?



Explanation:

Since John is going in two perfectly set directions, we can say that he formed a triangle of sorts.



We can therefore use the Pythagorean Theorem to find the missing side. The missing side is the hypotenuse (C when using the Pythagorean Theorem).

$$\begin{aligned}C^2 &= 30^2 + 20^2 \\C^2 &= 900 + 400 \\C^2 &= 1300 \\C &= \sqrt{1300} \\C &= 36.06 \text{ km}\end{aligned}$$

