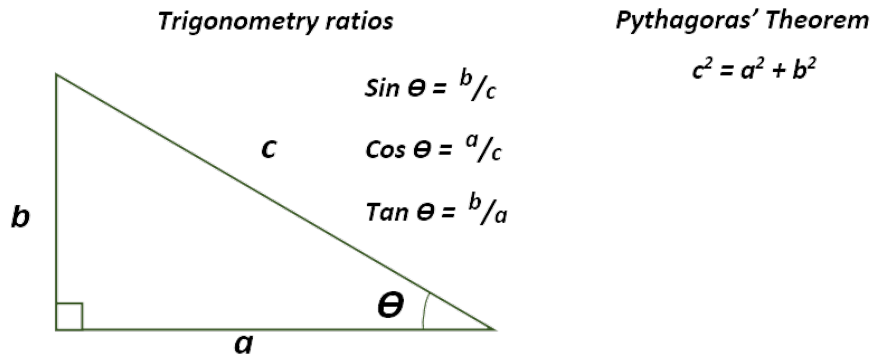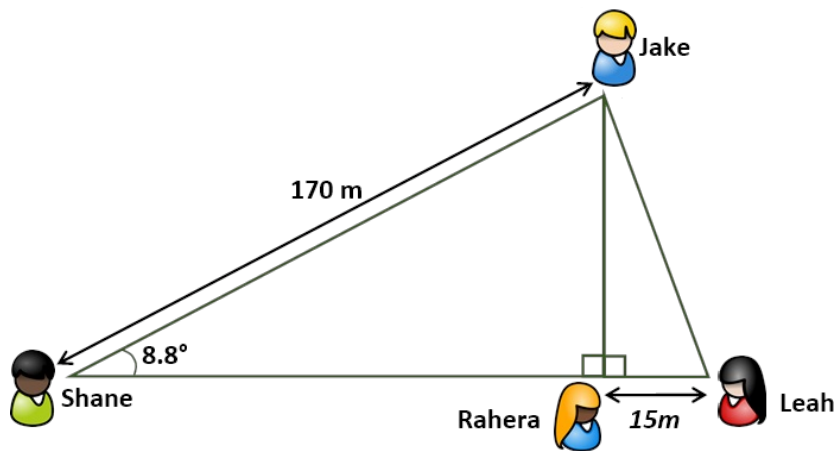# Distance between people

This task is about using Pythagoras' theorem and trigonometry ratios to calculate distances.

Trigonometry ratios

$Sin\ \theta = {}^b/_c$

$Cos\ \theta = {}^a/_c$

$Tan\ \theta = {}^b/_a$

Pythagoras' Theorem

$c^2 = a^2 + b^2$

Use the formulae above to answer the following questions.

Jake

170 m

8.8°

Shane

Rahera   15m   Leah

Shane, Jake, Rahera, and Leah are standing in a paddock. What is the distance between

i. Jake and Rahera? _____ metres

ii. Shane and Rahera? _____ metres

iii. Jake and Leah? _____ metres