Huk Check

7. Suppose Romeo is serenading Juliet while she is on her balcony. Romeo is facing north and sees the balcony at an angle of elevation of 20°. Paris, Juliet's other suitor, is observing the situation and is facing west. Paris sees the balcony at an angle of elevation of 18°. Romeo and Paris are 100 m apart as shown. Determine the height of Juliet's balcony above the ground, to the nearest metre.



9. Brit and Tara are standing 13.5 m apart on a dock when they observe a sailboat moving parallel to the dock. When the boat is equidistant between both girls, the angle of elevation to the top of its 8.0 m mast is 51° for both observers. Describe how you would calculate the angle, to the nearest degree, between Tara and the boat as viewed from Brit's position. Justify your reasoning with calculations.



DO NOT FEAR!!

Chapter 5 – Trigonometric Ratios

5.5 – Trigonometric Identities

Proving Trigonometric Identities is so much fun it's ridiculous!

When proving trig identities, it's helpful to keep a few things in your mind. Things such as:

- The Reciprocal Trig Identities
- Converting everything to sin and cos can be helpful
- Start with the side which has the most "stuff" to work with, and work toward the other side
- A few special formulas, which we need to find...

We'll begin with some basics. Consider the circle of radius 1, with point P(x, y):



Also By By By Gorus
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Sht²(
$$\theta$$
) + $(d^{2}\theta) = 1$
Prove 1+ $co^{2}(d) = co^{2}\theta$
 $do \theta = 1 - co^{2}\theta$
 $do \theta = 1 + co^{2}\theta$
 $do \theta = 1 - co^{2}\theta$
 $do \theta$