Pure Mathematics 1

# CHAPTER 6 Trigonometric Ratios

## 6.1 THE COSINE RULE

Using two of the sides of a triangle and the angle between them, it is certainly possible to represent the length of the third side in a simple or complex way.

Generally speaking, if you have enough time, I would suggest that you try to represent it using your own methods. Here is some

Pythagorean theorem, Vector,

Constructing the relationship between the three side lengths can be done by trying to create some intermediate conditions.

More time is spent on arithmetic when proving using vectors, and more time is spent looking for relationships on images when proving using the Pythagorean theorem.d

## 6.2 THE SINE RULE

## 6.3 AREAS OF TRIANGLES

## 6.4 SOLVING TRIANGLE PROBLEMS

## 6.5 GRAPHS OF SINE, COSINE AND TANGENT

## 6.6 TRANSFORMING TRIGONOMETRIC GRAPHS

## CHAPTER REIVEW 6

Proactively finding or constructing triangles that can use the cosine rule and the sine rule can provide new ideas for solving problems.

# CHAPTER 8 Differentiation

## 8.1 GRADIENTS OF CURVES

## 8.2 FIINDING THE DERIVATIVE

## 8.3 DIFFERENTIATING xn

## 8.4 DIFFERENTIATING QUADRATICS

## 8.5 DIFFERENTIATING FUNCTIONS WITH TWO OR ORE TERMS

## 8.6 GRADIENTS, TANGENTS AND NORMALS

## 8.7 SECOND ORDER DERIVATIVES

## CHAPTER REVIEW 8