

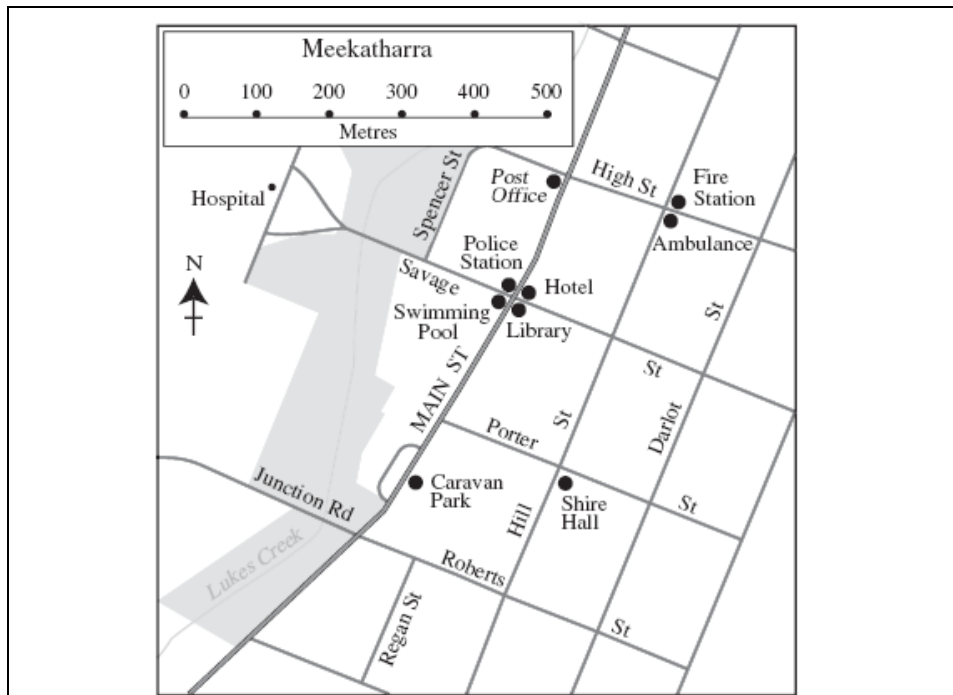
Numeracy Year 9 – Week 7: Space

STUDENT WORKSHEET

**Focus of the week**

Angle properties related to parallel or perpendicular lines

**Question 1**



On the map above, Porter St and Savage St are parallel.

The angle between Porter St and Main St is  $78^\circ$ .

What is the angle between Main St and Savage St:

- a) at the Swimming Pool? \_\_\_\_\_
- b) at the Hotel? \_\_\_\_\_

**Question 2**

In this diagram, the opposite sides of each shape are parallel.

What is the value of  $a$  and of  $b$ ?

$a =$  \_\_\_\_\_       $b =$  \_\_\_\_\_

**Question 3**

In this diagram, the opposite sides of the hexagon are parallel and the diagonal is parallel to the base of the hexagon.

What are the values of  $a$ ,  $b$  and  $c$ ?

$a =$  \_\_\_\_\_;  $b =$  \_\_\_\_\_;  $c =$  \_\_\_\_\_



**Challenge Question**

$ABCDEF$  is a hexagon with three pairs of parallel sides.  
Its sides are not all the same length.

What is the size of angle  $B$  if the size of angle  $A$  is  $62^\circ$  and the size of angle  $C$  is  $155^\circ$ ?