

# GREENLAWNS HIGH SCHOOL

Std 8

MATHEMATICS

60M

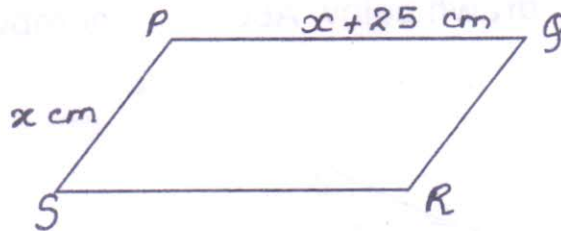
Time 1.5 hours

This paper has two sections Section A & Section B. Attempt all questions. Omission of essential steps will lead to loss of marks. Rough work must be done on the same page as the rest of the answer.

## SECTION A

### Question 1

- a) Find the square root of 54.3169 using division method (3)
- b) Simplify  $\left(\frac{27}{64}\right)^{\frac{2}{3}} \div \left(\frac{81}{256}\right)^{\frac{3}{4}}$  (3)
- c) In the figure drawn below PQRS is a parallelogram, Find the sides (4)  
Of the parallelogram if its perimeter is 150cm



### Question 2

- a) Expand  $(4x-7y+2z)^2$  (3)
- b) Divide  $x^2-7xy+12y^2$  by  $x-3y$  (3)
- c) The interior angles of a pentagon are in the ratio 15:25:30:20:18 find all its angles (4)

### Question 3

- a) Find the cubes of the following (3)  
i) 21      b) 3.9
- b) Subtract  $5x^2-3y^2-2z^2$  from the sum of  $3x^2+2y^2-3z^2$  &  $2z^2-x^2-3y^2$  (3)
- c) Solve  $5(x-2) + 2(x+4) = 9(x-4)$  (4)

... 2/-

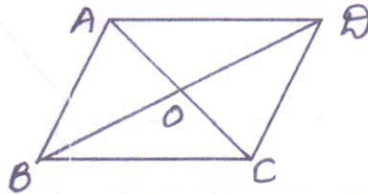
**SECTION B**

**Question 4**

- a) Simplify the following (3)
- i)  $5p^3q^4 \times 4p^4q^4$
  - ii)  $(x^{\frac{2}{3}}y^{\frac{1}{6}})^6 + (z^2)^0$
- b) Solve  $\frac{y-2}{y-5} = \frac{y+3}{y+5}$  (3)
- c) Factorise the following (4)
- i)  $p^4 - 81$
  - ii)  $x^2 + 8x + 16$

**Question 5**

- a) In the figure drawn below ABCD is a rhombus  $\angle BCD = 130^\circ$  (3)  
Find  $\angle ADB$



- b) Ram is 24 years older than Shyam. 10 years back Ram's age was five times the age of Shyam. Find their present ages. (3)
- c) Evaluate the following using suitable identities (4)
- i)  $997^2$
  - ii)  $33 \times 27$

**Question 6**

- a) The ratio between the interior angle and exterior angle of a Regular polygon is 8:1, find each exterior angle and the number of sides. (3)
- b) Factorise  $a^2+bc+ab+ac$  (3)
- c) Find the square root of the following using the prime factor Method (4)
- i) 0.00003136
  - ii)  $\frac{729}{1764}$