

Please note: 1. All sums must be done on composition sheets.

2. On each side of the composition sheet mention your name , rollno, std and div

3. The answer sheets must be converted into a clear pdf and must be uploaded on microsoft teams.

4. Rename your pdf as your 'Roll no name subject T1'

(Example: 12 Hari Kumar Math T1)

**Q1.a). Fill in the blanks.**

(4)

1.  $(x^2 + 4x + 8) - (3x^2 + \underline{\quad} + 6) = -2x^2 - x + 2$ .

2. If the measure of each interior angle of a regular polygon is  $150^\circ$ , then the number of sides of polygon equals \_\_\_\_\_.

3.  $\sqrt[3]{13824} = 24$  then  $\sqrt[3]{0.013824}$  is \_\_\_\_\_.

4. In the term  $12x^2y^3z^2$ , the coefficient of 12 is \_\_\_\_\_.

b). find the value of  $(64)^2 \times 2^{-6} \times 2^{-9} + (15)^0$  (3)

c). The interior angles of a hexagon are  $x, x-5, x-5, 2x-5, 2x-5, 2x+20$ . Find  $x$ . (3)

**Q2. Solve the following.**

i) Evaluate  $24.4 \times 25.6$  using the identities (3)

ii)  $\left(\frac{2x}{5y} - \frac{5y}{2x}\right)^2$  (3)

ii).  $7(2x-4) + 6(11x+3) = 4(3x+5) - 8(x-1)$  find  $x$ . (4)

**Q3. Solve the following.**

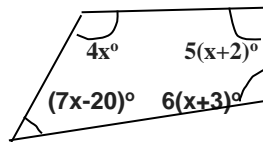
a). Using the identity  $(a+b)(a-b) = a^2 - b^2$  (3)

simplify  $(2x+7)(2x-7)(4x^2+49)$

b). solve the equation:

$\frac{6x-7}{4} + \frac{3x-5}{7} = \frac{5x+78}{28}$  (3)

c).



(4)

- i) Find the value of  $x$ .
- ii) Each angle of the quadrilateral.

**Q4.Solve the following.**

a) Divide  $x^3 - 3x^2 - 10x + 20$  by  $x - 2$  **(3)**

b)  $\left(\frac{25}{49}\right)^{3/2} \div \left(\frac{125}{8}\right)^{2/3} \times \frac{1}{4}$  **(3)**

c) Three angles of the quadrilateral are in the ratio 2:3:4 . If the sum of the least and the greatest of the given angles is equal to  $180^\circ$  . find the measures of all the angles of this quadrilateral. **(4)**