

City International School

FIRST TERMINAL EXAMINATION – 2015 - 2016

Date : 28/09/2015

Std : VIII

Subject : Mathematics

Marks : 80

Time : 2½ hrs

Answers to this Paper must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

Attempt all questions form Section A and any four questions from Section B.

The intended marks for questions or parts of questions are given in brackets ().

SECTION A [40 MARKS]

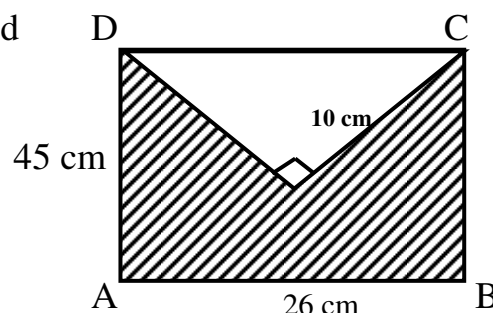
Attempt all questions.

Q.1 a. Find $\sqrt{1760929}$ by division method. (3)

b. If the weights of 65 packets of the same size be 26kg what is the weight of 25 such packets. (2)

c. Subtract $7x^3 - 6x^2y + 9xy^2 - 2y^3$ from $3x^2y - 2x^3 + y^3 - 5xy^2$ (2)

d. ABCD is a rectangle in which AB = 26cm and AD = 45cm DEC is a right angled triangle in which $\angle E = 90^\circ$, CE = 10cm (3)

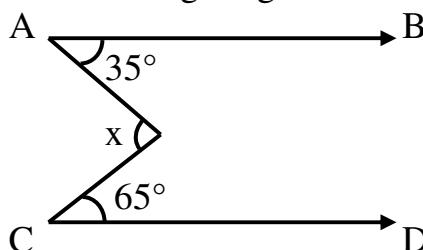


Find the area of the shaded region.

Q.2 a. Divide ₹2420 among A, B, C in the ratio 8 : 9 : 5 (3)

b. Find the product of $3 - 2x + 5x^2$ and $5x - 4$ (2)

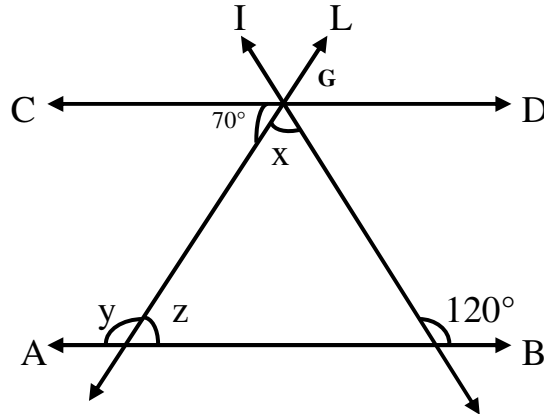
c. If $AB \parallel CD$ find the values of x giving reasons. (2)



d. Find x when (3)

$$\left(\frac{-3}{11}\right)^{x+5} \div \left(\frac{-3}{11}\right)^{-2x+3} = \left(\frac{-3}{11}\right)^{2x-5} \times \left(\frac{-3}{11}\right)^{-2}$$

- Q.3** a. Solve $\frac{z+5}{6} - \frac{z+1}{9} = \frac{z+3}{4}$ (3)
- b. Find i. $\sqrt{3000}$ if $\sqrt{30} = 5.477$ (2)
 ii. $\sqrt{1331}$ if $\sqrt{11} = 3.217$ (2)
- c. If $AB \parallel CD$ Find the values of x, y, z giving reasons. (3)

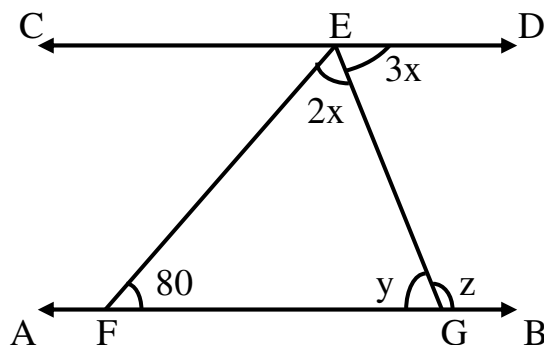


- Q.4** a. Factorize $x^2 - m^2 + 6mn - 9n^2$ (3)
- b. Find the value of 69^2 using $(a - b)^2$ (3)
- c. Divide $12x^2 + 11x + 2$ by $4x + 1$ (4)

SECTION B [40 MARKS]
Attempt any four questions from this section.

- Q.5** a. Find. i. Value of x if $1\frac{4}{5} : 2\frac{4}{5} :: x : 3\frac{1}{2}$ (2)
 ii. Mean proportional to 125 and 45 (2)
- b. Simplify: (3)
 $m^2 [3a^2 + 2m^2 - \{-3m^2 + 2a^2 - (m^2 - \overline{a^2 - 2})\}] - (m^2 - 3a^2 - 2)$

- c. If $AB \parallel CD$. Find x, y, z giving reasons. (4)



Q. 6 a. 15 men can do a piece of work in 36 hours. How many men will be required to finish the work in 20 hours? (3)

b. If $x^2 + \frac{1}{x^2} = 120$ Find i. $x - \frac{1}{x}$ ii. $x + \frac{1}{x}$ (3)

c. Evaluate. (4)

$$(64)^{2/3} + \sqrt[3]{125} + 3^\circ + \frac{1}{2^{-5}} + (27)^{-2/3} \times \left(\frac{25}{9}\right)^{-1/2}$$

Q. 7 a. Solve: if $\frac{3}{x-2} - \frac{2}{x-3} = \frac{4}{x-3} - \frac{3}{x-1}$ (3)

b. Factorize: $3x^2y + 11xy + 6y$ (3)

c. The perimeter of a square is 28cm. Find its area and length of its diagonal. (4)

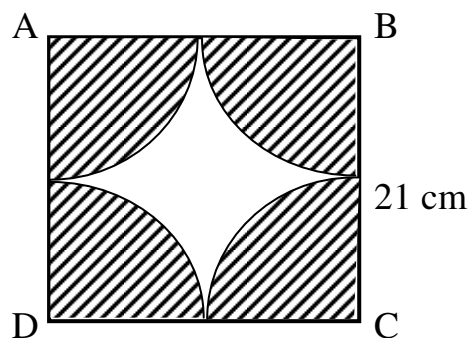
Q. 8 a. Solve: $10x^2 + 11x + 3 = 0$ (4)

b. Find the area of the (3)

shaded region

ABCD is a square

with side 21 m



c. Factorize: $16x^4 - 18y^4$ (3)

Q. 9 a. Divide: $x^3 - 9x^2 + 26x - 24$ by $x - y$ (3)

b. A father is 7 times as old as his son. Two years ago the father was 13 times as old as his son. What are their present ages. (4)

c. $21x^2 = 8x + 4$ (3)