First Term Evaluation 2017-18
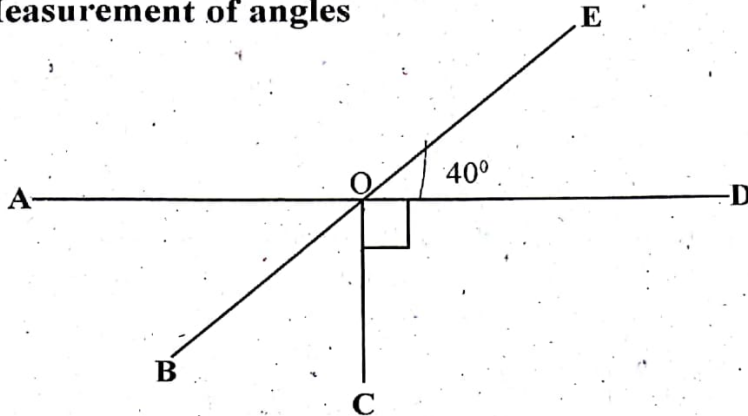## Mathematics

Standard : 7   **Time : 2 hrs**

Instructions

1.   15 minutes is allotted as cool of time. Read and comprehend the questions.

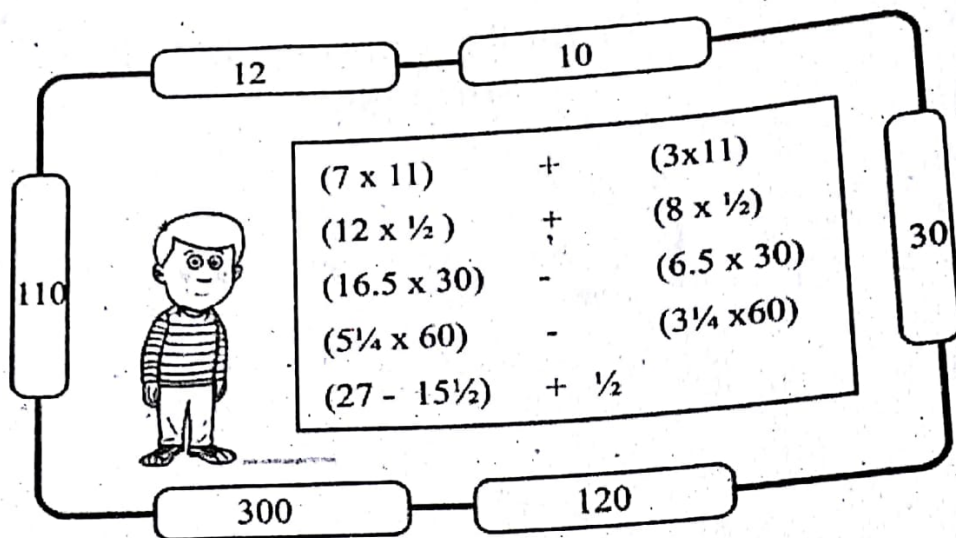2.   **Eight** activities are given. Answer any **six**.

Activity 1 - Measurement of angles

a)   Find the measure of ∠ BOC ?

b)   Which is the opposite angle of ∠ AOE ? Find its measure ?

c)   Identify two set of linear pairs from the figure ?

Activity 2

Complete the table

	Ordinary Language	Algebraic expression
Eg	Three times a number	$3x$
a)	4 is added to 5 times a number	....
b)	....	$\dfrac{m^2}{2}$
c)	....	$8y-5$
d)	2 times a number is subtracted from 6 times another number	....
e)	3 times a number added to 2 times the same number is 5 times the same number	....

Activity 3 - How to escape?

12	10

| 110 | (7 x 11)   +   (3x11)
 (12 x ½)   +   (8 x ½)
 (16.5 x 30)   -   (6.5 x 30)
 (5¼ x 60)   -   (3¼ x60)
 (27 - 15½)   + ½ | 30 |

300	120

Find the answers to the questions in the box. Use algebraic method to find the answer. The answers are given in the doors. The one which is not the correct answer, is the exit for Appu. Find the answers of all questions?
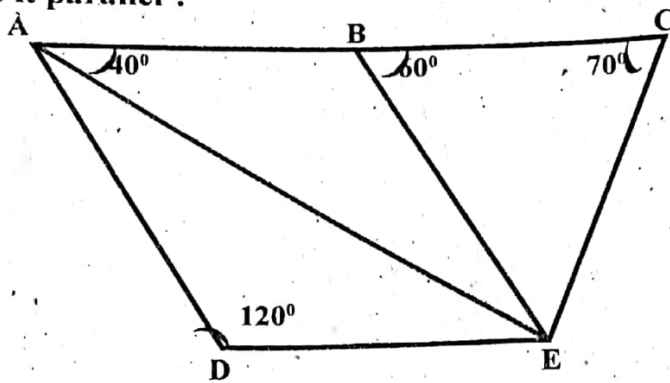
Activity 4 - Magic Square

15	1	11
5	9	13
7	17	3

.....	.....	x+2
.....	x	.....
.....	.....	x - 6

a) Complete the columns by writing the numbers in the algebraic forms.

b) Find the relation between the sum of the numbers in the magic square and the middle number.

c) Justify this relation using algebra.

Activity 5 - Different Relations

a) If $10000^2 = 10^2 \times 10^x \times 10^x$ find the value of x ?

b) If $10^x = 100$, find 10^{x+2} ?

c) Find the value of $\dfrac{10^9 \times 10^6}{10^8 \times 10^5}$?

d) Write 1000 as the product of the powers of prime numbers ?
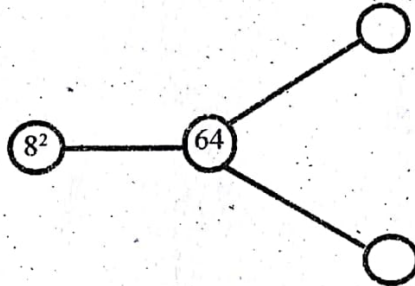
Activity 6 - Is it parallel ?

In the above figure AC and DE are parallel lines.

a) Find the measure of $\angle$ CEB ? Why?

b) Find $\angle$ ABE, $\angle$ AEB and $\angle$ AED ?

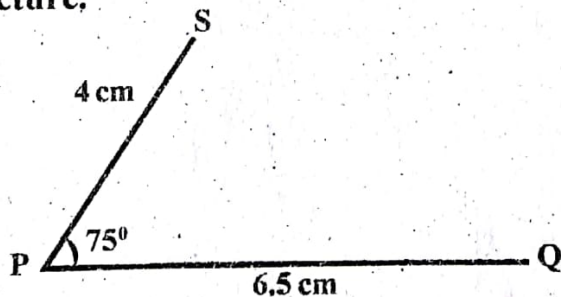c) Are AD and BE parallel lines? Justify your answer.

Activity 7 - Exponentiation

a) Split the number 324.618 according to the place value to the power of '10'.

b) Calculate in an easy way. $5^3 \times 2^4$

c) 64 is denoted as the powers of 8. Write 64 as the powers of 2 and 4.

Activity 8

Complete the picture.

a) Draw a line thorugh 'S' parallel to PQ and complete the parallelogram PQRS.

b) Find the measure of the other angles of PQRS.