



Visakha Vidyalaya, Colombo 05

1st term Test - 2016

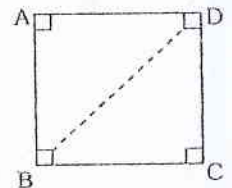
Mathematics

Grade 07

time : 2 hours

Name / index :

Part A



- 1) In the given diagram the line BD divides the ABCD square into two equal triangles. Write the number of axes of symmetry in one triangle so obtained.

- 2) Write all triangular numbers between 25 and 40.

- 3) The price of one book is Rs. 30. How many books can be bought for Rs. 180.

- 4) By simplifying find the value $42 \div 7 + (21 - 17)$

- 5) Consider the number 8793
(i) Explain why it is divisible by 9.
(ii) Explain why it is not divisible by 6.

- 6) Write down all multiples of 32 between 50 and 100.

- 7) 7.25kg of sugar is used out of 10kg. Find the mass of sugar left.

- 8) Find the value of $2^3 \times 5^2$

- 9) If

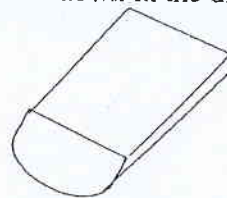
 represent 20, find the value represented by,

- 10) Find the value of $23 - x$ if $x = 17$.

11) A trunk of a coconut tree is cut and is divided into two equal parts as shown in the diagram.

(i) How many flat surfaces are there?

(ii) How many straight edges are there?



12) Express $8\text{ l } 25\text{ ml}$ of a liquid volume in milliliters.

13) The perimeter of a rectangle is 58 cm . If the length of a side is 18 cm find the breadth of one side.

14) The length of three wires are $2\text{ m } 12\text{ cm}$, 2.05 m and 2.1 m . Write down these lengths in ascending order.

15) $\frac{1}{9} + \frac{1}{9} + \frac{1}{9}$ simplify and keep the answer in the simplest form.

16) 40083005097 write the number in the standard form and write down the number belongs to the million zone.

17) In a 12.05 m deep well, water is filled upto 3.57 m . Find the height of the rest part which hasn't water.

18) Find all the factors of 54 .

19) Write all the integers between -3 and 2 .

20) Find the values for empty cages.

$$\begin{array}{r} 9 \quad 6 \\ \times 3 \quad 8 \\ \hline 7 \quad \square \quad 8 \end{array}$$

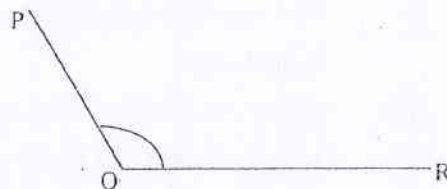
$$\begin{array}{r} 2 \quad 8 \quad 8 \\ 3 \quad 6 \quad \square \quad 8 \\ \hline \hline \end{array}$$

Part II

- Answer all questions.

(1) (a) In the given angle.

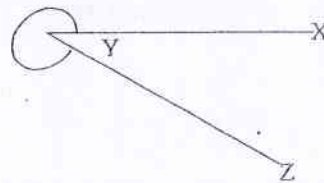
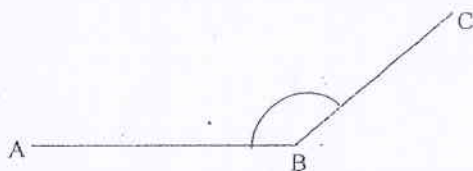
- (i) Write down arms
- (ii) Write the vertex.
- (iii) Name the angle in two ways



(b) (i) Draw straight line segment and name it AB.

(ii) Draw the arm AC such that $\widehat{BAC} = 225^\circ$

(c) Measure and write the magnitude of the following angles.



(2) (a) Find the following sums using the number line.

(i) $\left(-6\frac{1}{2}\right) + (+11)$

(ii) $\left(-3\frac{1}{2}\right) + \left(-5\frac{1}{2}\right)$

(b) Simplify without the number line.

(i) $(-9) + (+11) + (-6)$

(ii) $\left(+\frac{3}{8}\right) + \left(-\frac{5}{8}\right) + \left(+\frac{7}{8}\right)$

(iii) $(-11.7) + (+3.65) + (+4.92)$

(3) (a) (i) Write down the first year of the decade 196.

(ii) To which century does that year belong?

(iii) To which millennium does that year belong?

(b) One project has to be completed within 200 days. Write that in months and days.

(c) (i) year month day

11 09 27

+ 5 06 18

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(ii) month day hours

11 03 11

- 7 25 17

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(4) (a) (i) Write the power with base 2 and the index 7.

(ii) Write 64 as a power of 4.

(iii) Write 108 as a product of prime factors.

(b) $2 \times 2 \times 2 \times a \times a \times b \times b \times b$

(i) Write down the above product using index notation.

(ii) Find the value of above answer when $a = 3$ and $b = 5$.

- (5) (i) Find all factors of 42 by expressing it as a product of two whole numbers.
- (ii) Write down all prime factors of 42.
- (iii) Find the HCF of 28 and 42.
- (iv) Find the LCM of 28 and 42.
- (6) (i) Draw a straight line segment and mark points A and B such that $AB = 5\text{cm}$.
- (ii) Draw a perpendicular line to AB through the point A using the set square and the straight edge.
- (iii) Mark the point D on that line such that $AD = 8\text{cm}$
- (iv) Draw a parallel line to AB through D using the set square and the straight edge
- (v) Complete the ABCD quadrilateral such that $AB = CD$.
- (vi) Write the special name for that quadrilateral.
- (vii) Join A and C. Using set square and the straight edge draw a parallel line to AC through D and name it as XY.