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சபரகமுவ மாகாண கல்வித் திணைக்களம்
Sabaragamuwa Provincial Department of Education

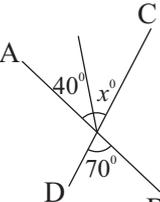
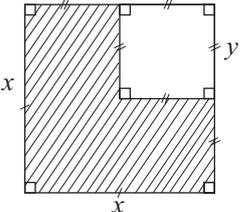
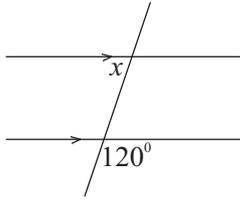
පළමු වාර පරීක්ෂණය - 2018
முதலாம் தவணைப் பரீட்சை - 2018
First Term Test - 2018

09 ශ්‍රේණිය
தரம் 09
Grade 09

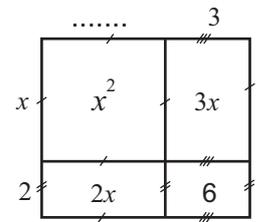
ගණිතය - 1
கணிதம் - 1
Mathematics - 1

පැය 2 ටි මිනිත්තු 30
2 மணித்தியாலம் 30 நிமிடம்
Two and Half Hours

Answer all questions in this paper itself.

(1) Write the next two terms of the pattern. 17, 14, 11, 08,,	
(2) Solve. $3x = 12$	
(3) Find $\frac{1}{4}$ of Rs 500	
(4) Find the value of x where AB and CD are straight line.	
(5) Find the selling price of an article of Rs 500 with 5% profit.	
(6) Represent the area of the shaded region of the diagram as factors.	
(7) Represent 101_{two} in decimal form.	
(8) Find the value of x .	
(9) Sunimal travell $\frac{3}{4}$ of the distance from home to school by bus and the remaining by walk. Find what fraction of the total distance travel by walk?	

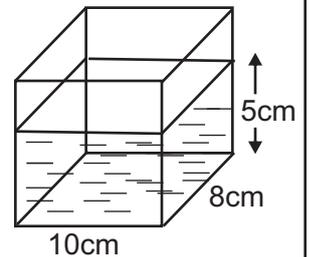
(10) Fill in the blank and write the expression for the length of the figure.



(11) Factorize. $2x^2 - 8$

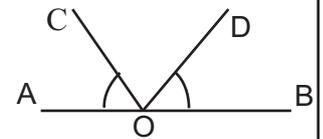
(12) Rs 500 of discount allowed for the article of worth Rs 20 000. Find discount as percentage.

(13) Find the volume of the liquid in the container in given diagram.



(14) Find the value of $5 - 3a$, where $a = (-2)$

(15) If $\hat{AOC} = \hat{BOD}$, Show that $\hat{AOD} = \hat{BOC}$



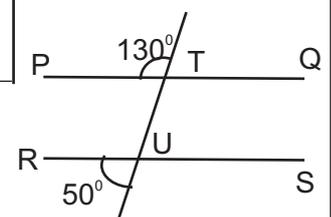
(16) In a house, $\frac{3}{8}$ of the volume of the water tank used on Monday and $\frac{1}{4}$ of the tank is used on Tuesday. In which day consumed more amount of water.

(17) A person charge 4% of commission when selling a vehicle. Find the amount of commission recieved by selling a vehicle at Rs 250 000.

(18) $(p+3)(p+2) = p^2 + 5p + a$ Find "a" according to the given statement.

(19) Factorize. $x^2 - 3x - 5x + 15$

(20) Show PQ and RS are parallel.



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09 ශ්‍රේණිය
தரம் 09
Grade 09

ගණිතය - II
கணிதம் - II
Mathematics - II

Answer only six questions.

- (01) a) Nimali collect money to a till to buy a book as follow. Rs 2 in the first week, Rs 5 in the second week, Rs 8 in third week continuously.
- (i) Find the common term of the above pattern.
- (ii) In which week Nimali put Rs 32 to the till.
- b) (i) Add $101_{two} + 11_{two}$
- (ii) Select the larger number among 101_{two} and 12_{ten}

- (02) (i) A carpenter made a table by spending Rs 10 000 and marked selling price including 20% of profit. Find the marked price of a table.
- (ii) A seller received 5% of discount for the above table. Find the discount amount.
- (iii) Find the profit received by a carpenter by selling above table.

The displayed advertisement in two shops to sell that table as follow.

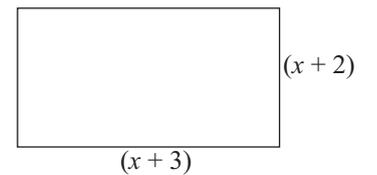
Deepani
10% discount for
Rs 13 000 valuable table

Samadhi
15% discount for
Rs 14 000 valuable table

- (iv) Find the selling price of a table in shop Deepani.
- (v) In which shop owner can receive more profit?

- (03) a) Expand and simplify $(d + 7)(d - 4)$

- b) Rectangular flower bed is represent in the diagram. Length of the vegetable bed is 2 units more than length of the flower bed and breadth is 1 unit less than breadth of the flower bed.



- (i) Find the area of the flower bed.
- (ii) Find length and breadth of the vegetable bed in terms of "x"
- (iii) Write the expression for the area of the vegetable bed.
- (iv) Find the difference of the areas of two beds where $x = 2$

(04) (i) Simplify $\frac{3}{7} \div 1\frac{4}{5}$

(ii) Simplify $(\frac{2}{3} + \frac{1}{4}) \times \frac{4}{7}$

Kamal travel $\frac{1}{2}$ of the Journey by bus and $\frac{1}{3}$ of the remain by train.

(iii) Find the distance travel by train as fraction of the whole journey.

(iv) The rest of the journey is travel by a three wheeler. Find the distance travel by three wheeler as fraction.

(05) Factorize (i) $x^2 - 3x + 2x - 6$

(ii) $12 - 3p^2$

(iii) $a^2 + 3a - 10$

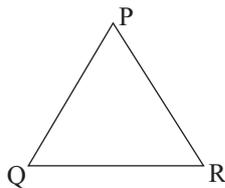
(iv) Area of the rectangle is $a^2 + 3a - 10$ and breath of it's $(a - 2)$. Find expression for the length of the rectangle in terms of "a"

(06) a) (i)



Find length of SQ where $PS = RQ = 10$ cm and $PR = 8$ cm

(ii)



Find the perimeter of PQR where $PR = RQ$, $PQ = QR$ and $PQ = 6$ cm

b) Length, breadth and height of cuboidal tank is 3m, 2m and 1m respectively.

(i) Find the capacity of the above tank in liters.

(ii) Find amount of water required for a cultivated land of 20 m^2 where 20 l required for 1 m^2 per day.

(iii) Find how many days the amount of water in the tank is sufficient to the cultivated land.

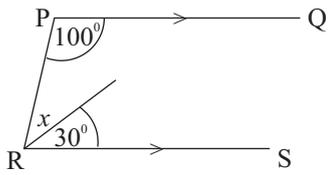
(07) a) Find $\frac{3}{8}$ of 1 km in meters.

b) (i) Company "A" charge commission of 5% to sold a land. Find the amount remain to the owner after selling a land at Rs 1 000 000.

(ii) Company B agree to sold the above land at Rs 900 000 with the commission of 7%. Find in which company receive more commission?

(iii) According to the above, in which company is more profitable to sold a land to owner. Give reason for it.

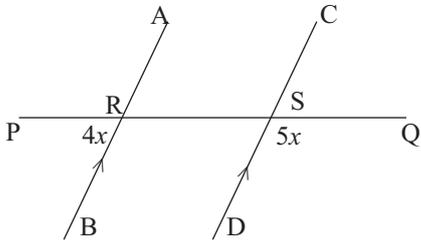
(08) a)



(i) Find the value of x

(ii) Write the theorem related to above

b)



(i) Find $\hat{P}RB$

(ii) Show that $\hat{P}RB = \hat{C}SQ$