| සියලු | සියලු ම හිමිකම් ඇවිටිණි/All Rights Reserved | | | | | | | | |
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| පළමුවන වාර පරීක්ෂණය 2023 (2023 ජූලි) First Term Test 2023 (July 2023) | | | | | | | | | |
| -AKI | ගණිතය Mathematics | 8 ලෝණිය Grade 8 | පැය දෙකයි මිනිත්තු 30 යි Two hours 30 minitues | | | | | | |
| Name/ Index no. : | | | | | | | | | |
| | Part I | | | | | | | | |
| * A1 | nswer all the questions. | | | | | | | | |
| 1. | Write the general term of the nur | mber pattern 4, 8, 12,16, | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 2. | 2. List out the elements of the following set using a venn diagram. | | | | | | | | |
| | $A = \{$ Letters of the word "MAH. | ARAGAMA" } | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 3. | Simplify 9t 304kg÷ 8. | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 4. | Find the value of $(-4)^2 \times 3^2$ | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 5. | Calculate the perimeter of the given by the second | ven figure. | | | | | | | |
| | | | mathematica lk $\frac{1}{2}$ | | | | | | |
| | | | $\leftarrow 12m \rightarrow \leftarrow 5m \rightarrow$ | | | | | | |
| | | | | | | | | | |

| | -2- |
|-----|---|
| 6. | Are the two angles x and y in the figure adjacent angles? Give mathematica. It reasons. |
| | x |
| | |
| | |
| 7. | Write the number of faces and number of vertices in regular dodecahedron. |
| | |
| | |
| 8. | Write the value of the complement of 38°. |
| | |
| | |
| | |
| 9. | Fill in each cage with suitable directed numbers. (± 108) |
| | $\frac{(+108)}{(+3)\times} = \frac{(+108)}{(-9)} = (-12)$ |
| | |
| 10. | If the area of a square land is 196m ² , Find the perimeter of it. |
| | |
| | |
| | |
| 11. | If PQ and ST are straight lines, find the value of a° ? mathematica.lk |
| | $P \xrightarrow[152^\circ]{a^\circ 47^\circ} Q$ |
| | |
| 12 | $12rv + 8v^2$ Write the above algebraic expression as a product of two factors |
| 12. | 12xy + by while the above algebraic expression as a product of two factors. |
| | |
| | |
| | |

| | _3_ |
|-----|---|
| 13. | Simplify. $-4(5x - 2y + 3)$ |
| | |
| | |
| 14. | Find the value of $(-6) - (-5)$ using the number line given. |
| | -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 |
| 15. | Express the area of the rectangle given using algebraic expression and |
| | simplify it. |
| | - dt |
| | |
| 16. | Arrange in ascending order. $(1)^3 (2)^3 (2)^4$ |
| | (-1), (-2) , (-2) |
| | |
| 17. | In a solid with straight edges, number of edges is 9, number of faces is 5. Using the Euler's relationship find the number of vertices. |
| | |
| | |
| 18. | $(5 \times 2 \times 3)^2$ Express as a product of power and evaluate. |
| | |
| | |
| 19. | Find the square root of 484 using prime factors. |
| | |
| | |
| 20. | Write the algebraic expression given as a product of two factors such that one factor is a negative number. |
| | -6a + 42b - 18 |
| | |
| | * * |

| | | -4- | |
|----|---|--|---|
| | | Part II | |
| * | Ans | wer 05 questions only. | |
| 1. | 1. (a) In the number pattern 12, 24, 36, 48, of the multiples of 12 starting from and written in ascending order. | | |
| | | (i) What is the general term? | (2 marks) |
| | | (ii) What is the 15 th term? | (2 marks) |
| | | (iii) Which term is 288? | (2 marks) |
| | | (iv) Is 424 is a number of this number pattern? Give reasons. | (3 marks) |
| | (b) | What is the smallest multiple of 4 larger than 100? Which term is it in the number pattern of the multiples of 4 starting | (1 mark) g from 4? (2 marks) |
| 2. | (<i>a</i>) | If the perimeter of a wooden lamina composed of a square and 4 equilateral driangles with base equal to a side of a square is 320cm. | |
| | | (i) Find the length of a side of the square? (2 marks) | \bigwedge |
| | | (ii) Find the perimeter of the equilateral triangular shaped wooden lamina? (2 marks) | |
| | | (iii) If the ribbon is to be fixed around this decoration, find the minimum length of the ribbon needed for 55 such decorations. (3 marks) | |
| | (b) | (i) Find the number of times a lorry with the goods loaded in i weight of goods of 1394t, if the maximum load it can carry at | it, has to transport a one time is 8.5t? |
| | | (ii) If this lorry consumes 4 <i>l</i> of fual for one trip, find the to consumed for transporting the above goods. | otal amount of fuel (2 marks) |
| 3. | (<i>a</i>) | Find the value. (i) (+4) - (+7) | (1 mark) |
| | | (ii) $\left(+4\frac{1}{2}\right) - (-3) - \left(-\frac{1}{4}\right)$ | (2 marks) |
| | | (iii) $(+17.5) + (-15.7)$ | (2 marks) |
| | | (iv) $(-5.3) \times (-24)$ | (2 marks) |
| | | (v) $\frac{(-9) \times (-8) \times (+4)}{(-4) \times (+3) \times (-6)}$ | (2 marks) |
| | (<i>b</i>) | Find the value of SOR . | (3 marks) |
| | | 30° 160° 30° 0 mathematica.lk | R |
| | | S | |
| | | | [See mage form |

| 4. (<i>a</i>) (i) The length of a rectangular s meters and its breadth is "q"n As given in the diagram a square. | ape lamina is "p" eters. are shape section remaining part $p m \longrightarrow p m \longrightarrow p m$ |
|--|--|
| of side length"q"was remove Express the area of the (unshaded part) by an algebr simplify it. | ic expression and (3 marks) |
| (ii) If $p = 5m$ and $q = 2m$, Find the function of the funct | e value of above expression. (2 marks) |
| (b) If $x = -1$, $y = 2$ and $z = 3$ find the va (i) $2x + 3y$ (ii) $3(4z-y) + 2x$ | ue of following expressions. (2 marks) (3 marks) |
| (c) Find the value of $\sqrt{784}$. | (2 marks) |
| 5. (a) (i) Show that $27x^3 = (3x)^3$ | (2 marks) |
| (ii) Show that $(-1)^{2001} > \frac{1}{2}$ | (2 marks) |
| (b) Find the highest common factor of (i) $2x^2$, $3xy$ (ii) $4a^2$, $8ab$, $2abc$ | algebraic expressions. (2 marks) (2 marks) |
| (c) Write the given expressions as a g (i) $9x + 27xy$ (ii) $3a^2 + 12ab$ | roduct of two factors. (2 marks) (2 marks) |
| 6. (i) What is the shape of a face regular | Octahedron? (1 mark) |
| (ii) Find the number of faces, vertices | nd edges of that solid. (3 marks) |
| (iii) Name another two platonic solids octahedron. | which has the same of faces as in regular (2 marks) |
| (iv) Name two special features of plate | nic solids. (2 marks) |
| (v) Find the number of faces, vertices composite solid. Faces Vertices Edges | nd edges in the given mathematica.lk |
| Show that it satisfy Euler's Relation | nship. (4 marks) |



කෙටි සටහන් |පසුගිය පුශ්න පතු |වැඩ පොත් සඟරා | O/L පුශ්න පතු | A/L පුශ්න පතු |අනුමාන පුශ්න පතු |අතිරේක කියවීම් පොත් | School Book ගුරු අතපොත්



පෙර පාසලේ සිට උසස් පෙළ දක්වා සියළුම පුශ්න පතු, කෙටි සටහන්, වැඩ පොත්, අතිරේක කියවීම් පොත්, සඟරා **සිංහල සහ ඉංගුසි වාධාණයන් ගෙදරටව ගෙන්වා ගැනීවට**

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