

HOLIDAY PACKAGES S1

_Given the sets $A = \{1, 2, 3, a, b\}$ and $B = \{a, b, c, d\}$

Find i) $A - B$ ii) $B - A$ iii) $A \Delta B$ / 3 Marks

1. In a class 15 students play cricket , 11 play hockey , 6 play both games and everyone plays at least one of the games. Find the total number of the student in the class. / 3 marks
2. Given the set $P = \{2, 4, 6, 8, 10\}$, Use the Relation (is a half of) to give set Q .
 - a) List the element of set Q
 - b) Map set P on to Set Q
 - c) Draw a graph of P against Q / 4 marks
3. Given a Function $f(x) = x^2 + 2$. Find $f^{-1}(x)$ inverse of $f(x)$. / 3 marks
4. Work out $\frac{3\frac{1}{2} - 1\frac{5}{6} \times \frac{3}{11}}{1\frac{3}{4} + 7\frac{2}{3} \div 3\frac{5}{6}}$ / 3 marks
5. Convert the following recurring decimal to fractions / 4 marks
 - a) $0.2\dot{3}$
 - b) $1.\dot{2}\dot{1}$
 - c) $0.\dot{0}0\dot{1}$
6. Given a function $3y + 4x - 1 = 0$. / 4 marks
 - a) Find the gradient /Slope of this function
 - b) Find x and y – intercepts
 - c) Draw a graph of this function
7. Solve the following equations / 4 marks
 - a) $4(3x - 5) - 7(2x + 3) + 2(5x + 11) = 5$
 - b) $2\sqrt{2x + 1} = 4$
8. Solve the inequality and present a solution on numberline $2(1 + x) - 3(x - 2) \geq 25$ / 4 marks / 4 marks
9. A coat is priced at 5400 FRW. During a sale , 2400 FRW is allowed as a Discount . what percentage Discount was allowed on the sale price of coat? / 3 marks