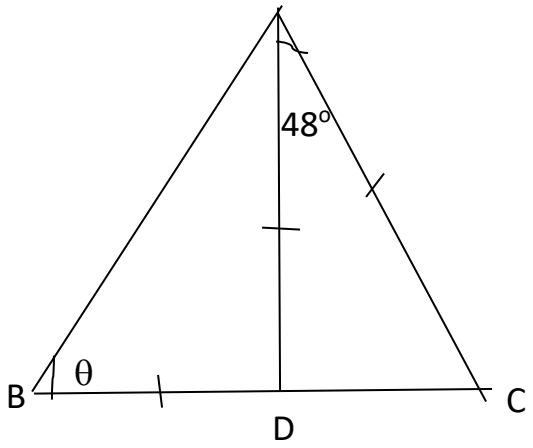
**MERRYLAND HIGH SCHOOL - ENTEBBE**
**HOLIDAYTERM 1 2020BREAK**
**MATHEATICS**
**S.2**

**INSTRUCTIONS:**
***Answer ALL questions.***

1. Find the LCM and HCF of 18, 42 and 48. (4 marks)

2. Adrian sold a motorcycle to Paul at a loss of 25%. If he sold it at shs. 2,560,000, Find how much money Adrian bought it. (4 marks)

3. Find the size of angle $\theta$ in the figure below:




4. Given that r*s = $\frac{r^2+5^2}{10^s}$, find

   a) 4*-8

   b) 7*(4*-8) (4 marks)

5. Express the bearing "South South East" in degrees. (4marks)
6. A straight line of gradient -1, passes through the point (3, -2).

a) Determine the equation of the line. (2 marks)

b) Through which point does the line cut the Y-axis? (2marks)

7. Mercy is five years younger than John and Peter is twice as old as Mercy. The sum of their ages is 49. Find Peter's age. (4marks)

8. Calculate the compound interest on shs.500,000 for10yearsatarateof8% per annum. (4marks)

9. Convert5.272727……. as a fraction in its simplest form. (4marks)

10. Given that:
P{All factors of 24}
Q = {All factorsof30}
Find;

(i) $n(P \cap Q)$

(ii) $n(P' \cap Q)$ where $P'$ is the complement of set P

***END***