

OUR LADY OF GOOD COUNSEL S.S.S

**MATHEMATICS DEPARTMENT
S.1 HOLIDAY WORK 2020**

1. Convert the following numbers to base ten

(i) 124_{five}

(ii) $3et_{\text{twelve}}$

(iii) 145_{six}

2. Convert 513_{six} to the following bases

(i) Decimal

(ii) Duo decimal

(iii) five

3. Work out using an abacus

(a) $1513_{\text{six}} + 203_{\text{six}}$

(b) $1465_{\text{twelve}} + 3556_{\text{twelve}}$

4. Multiply the following

(a) $t01_{\text{twelve}} \times 9_{\text{twelve}}$

(b) $444_{\text{five}} \times 13_{\text{five}}$

5. Divide the following

(a) 220_{five} by 30_{five}

(b) 240_{six} by 12_{six}

(c) 200_{twelve} by 20_{twelve}

6. Work out $135_{\text{six}} \times 48_{\text{nine}}$ and give your answer in base seven

7. Solve for n if $205_n = 77_{\text{ten}}$

8. Solve for x if $104_x = 1002_{\text{three}}$

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