**MATHEMATICS FORM THREE**

**MARKING SCHEME**

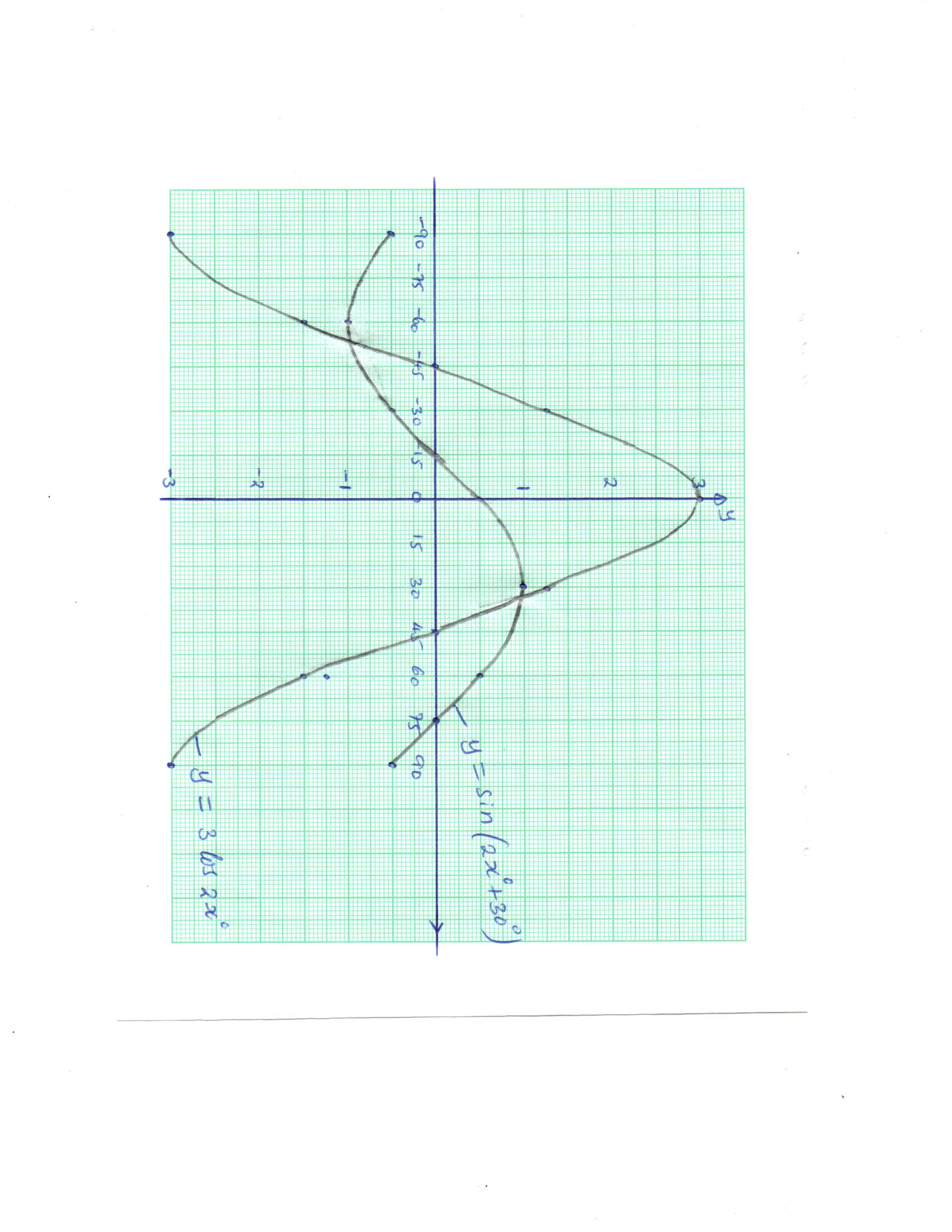
|  |  |  |  |
| --- | --- | --- | --- |
| **NO** | **WORKING** | **MARKS** | **REMARKS** |
| 1 | Numerator  Denominator | M 1  M 1  A 1 |  |
| 2 |  | M1  M1  A1 |  |
| 3 | 100 500 dollars to shillings =  Balance after expenses =  Amount received in Japanese Yen = | M 1  M 1  A 1 |  |
| 4 | |  |  |  | | --- | --- | --- | | **NO** | **Standard form** | **Log** | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | B 1  B1  B 1  A 1 | **All logarithms**  **Addition and subtraction**  **Cube root**  **Correct answer** |
| 5 | Absolute error = 0.05  Actual Perimeter =  Max perimeter =  Min perimeter =21.95 cm  % error | B1  M1  A1 |  |
| 6 | Mid-point of AB =  Equation of | M 1  M 1  A 1 | Correct coordinates of mid-point  Gradient of line L2  Equation of L2 |
| 7 | = 13.76 cm   1. Area = | M 1  A 1  M 1  A 1 |  |
| 8 |  | M1  M1  A1 |  |
| 9 |  | M 1  M 1  A 1 |  |
| 10 |  | M 1  M 1  A 1 |  |
| 11 | =  Cost price =  = | M1  M1  A1 | expression |
| 12 | C:\Users\user\Desktop\SCAN\img20190620_15122589.jpg | | |

|  |  |  |  |
| --- | --- | --- | --- |
| 13 |  | B 1  M 1  A 1 |  |
| 14 |  | M1  M1  A1 |  |
| 15 | C:\Users\user\Desktop\SCAN\img20190620_15122589.jpg | M 1  A 1  B 1 | Both inequalities solved  Compound inequality  Number line |
| 16 | 16th term = | B 1  M 1  A 1 |  |
| 17 | =   1. Calculation of tax due   1st slab =  2nd slab =  3rd slab =  4th slab =  5th slab =  Tax due =    Net tax =   1. Net income = | M1  A1  M1  M1  M1  A1  M1  A1  M1  A1 |  |

18. a)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 2.6 |  |  | 1.5 |  |  |  |  |
|  |  |  |  |  |  |  |  | 0.87 |  | 0.87 |  |  |  |

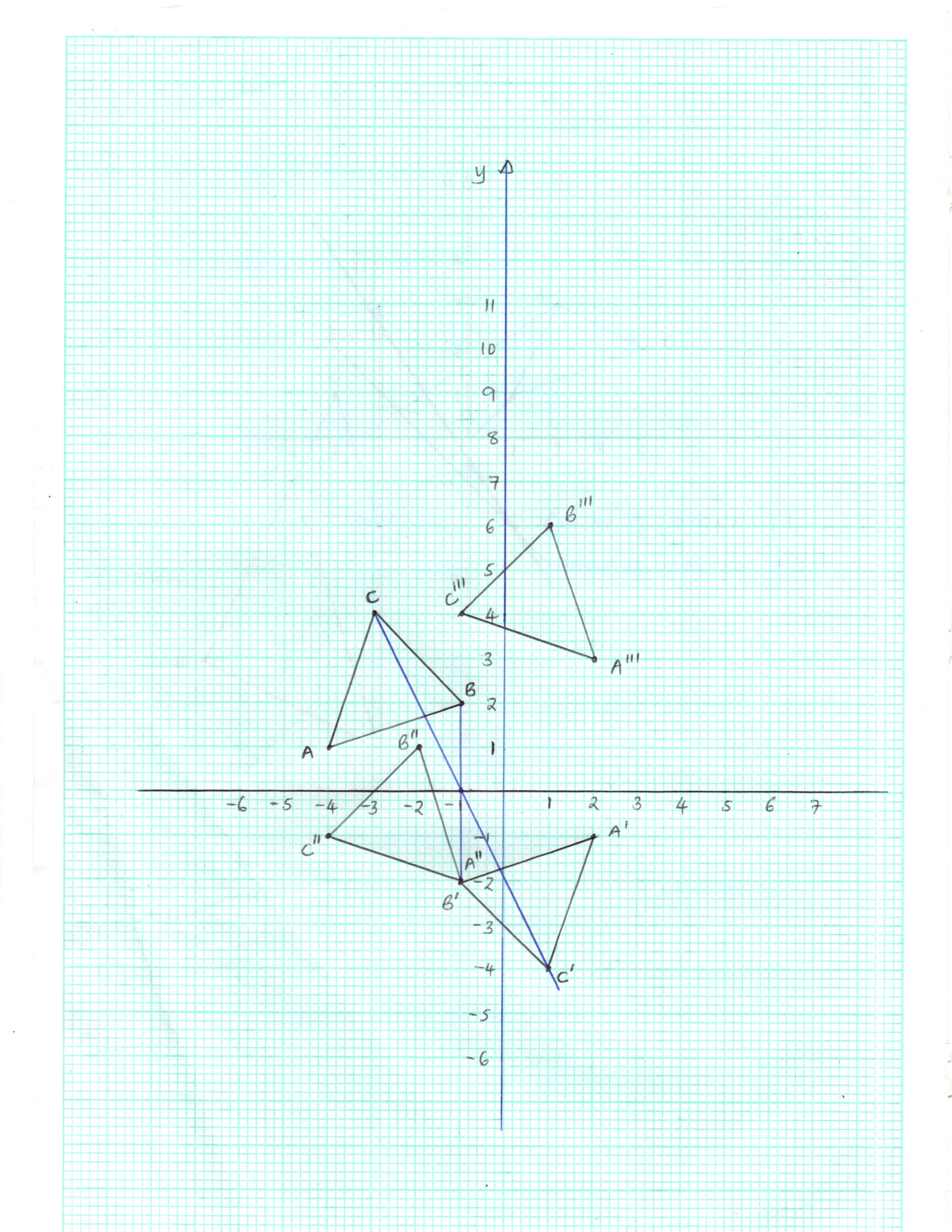




1. (i) and

(ii)

19.



1. **B 1** Diagram
2. **B 1** Plotting

**B 1** Diagram

**B 1** Coordinates

1. **B 1** plotting

**B 1** Diagram

**B 1** Coordinates

1. (i)

**B 1**

(ii) **B 1** coordinates

Diagram

|  |  |  |  |
| --- | --- | --- | --- |
| 20 | 1. (i)   (ii) 2    b) i)    ii)    iii) | B1  B1  B1  M1  M1  A1  M1  A1  M1  A1 | Correct equation  solving |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | 1. The completed table is shown below.  |  |  |  |  | | --- | --- | --- | --- | | Mass in Kg | Class mid-point | Frequency |  | |  | 43 | 5 | 215 | |  | 48 | 10 | 480 | |  | 53 | 14 | 742 | |  | 58 | 8 | 464 | |  | 63 | 3 | 189 | |  | | ∑f = 40 | ∑f |  1. (i) Mean mass   (ii) Median =   1. Frequency polygon on the attached graph.   C:\Users\user\Desktop\SCAN\img20190620_15163176.jpg | | B 1 – column for  B 1 – column for  B 1 – column for  B 1 - ∑f  M 1  A 1  M 1  A 1  B 1 all points plotted  B 1 polygon drawn |
| 22 | 1. Total length = | M 1  A 1  B 1  M 1 A 1  B 1  M1 A1  M 1  A 1 |  |
| 23 | 1. (i) Area of curved part   Area of Rectangular part =  Total Area of solid    (ii) Curved length = =12.57  Total perimeter    = 40.57cm   1. Volume of solid     Density == | M1  M1  A1  M1  M1 A 1  M1  A1  M1  A1 |  |
| 24 | F:\COMPUTER\STEP UP SERIES\EXAM\T2 2019\SCAN\img20190621_17350996.jpg   1. (I)   (II)   1. B 1 – angle of depression   B 1 - construction of perpendicular bisector of PQ from M.  B 1 - | | B 1  B 1 |