**FORM 4 MATHS MARKING SCHEME**

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| --- | --- | --- | --- |
|  | No Log  0.7841  0.1356½ =  Log 84.92 = 1.929    0.5310 | M1  M1  M1  A1 | 🗸 logs  🗸 oper |
|  | 1. Difference in longitude = 10 + 35 = 450 | M1  M1  A1 |  |
| 3. | a) | B1 |  |
|  | b) ∴(a, b) = (-6,8) | M1  M1  A1 |  |
|  | **x = y +**  x – y =  (x – y)2 x2 + a2  (x – y)2 x2 = a2  + = a  + = a  + = a |  |  |
|  | X= 400  =Tan  =Tan 60 | M1  A1  B1 |  |
|  |  |  |  |
|  | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | 1 | 2  **CUBE** | 3 | 4 | 5 | 6 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | 4 | 5 | 6 | 7 | 8 | 9 | 10 |   a) i) P(6) = =  ii) P(6 or 9) =  P(6) =  P(9) =  +  = | B1  B1  B1  B1 |  |
| 7. | (a) s = 83 – 5 x 82 + 3 x 8 + 4  512 – 320 + 24 + 4  = 220m  (b) V = ds = 3t2 – 10t + 3  dt  = 3 x 102 – 10 x 10 + 3  300 – 100 +3 = 197m |  |  |
| 8. | (x + 2 ) ( x – 5 ) = 60  x2 – 5x + 2x – 10 = 60  x2 – 3x – 70 = 0  x2 – 10x + 7x – 70 = 0  x ( x – 10) + 7(x – 10) = 0  ( x – 10) ( x +7) = 0  x = 10  x = -7  Length 10 + 2 = 12m | M1  M1  A1 |  |
|  | Upper class limits 12.5, 15.5, 18.5, 21.5 24.5  Cumulative frequency 3, 19 55, 86,100    b) i) Median = 50th 18.2 ± 0.15  ii) Leaves below 13 =4 leaves  leaves below 17 =35 leaves  leaves between 13 and 17 = 35-4=31 | B1  B1  S1  P1  C1  B1  B1  B1  M1  A1 | May be implied. |
|  |  |  |  |
|  | (b) (b)  (c)  Coordinates P¹¹ (2, 2) Q¹(-6,4) R¹¹ (0,6)  (d) It an enlargement centre origin (0, 0) scale factor 2  B1 for triangles |  |  |