Band 4 – Test 1 Answers

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | 180 – 165 = 1515 ÷ 180 x 100 = 8.3% | 1 mark for calculating change value1 mark for change x 100 original1 mark for correct answer | 3 |
| 2. | £450 x 2.1 = 945 francs | 1 mark for multiplying by exchange rate1 mark for correct answer | 2 |
| 3. | 15.95 15.5 16.05 16.4 16.5 | Correct answer | 1 |
| 4. | 6 x 300 = 1800 = 3600 0.5 0.5 | 1 mark for rounding one value to 1 significant figure1 mark for rounding all values to 1 significant figure1 mark for correct answer | 3 |
| 5. | a12 | Correct answer | 1 |
| 6. | 4 x 107 0.00003 | 1 mark for each correct answer | 2 |
| 7. | 5x(y + 2x)x² - 3x + 4x – 12x² + x - 12 | 1 mark for partially factorisedOr 2 marks for fully factorised1 mark for expanding correctly1 mark for simplifying correctly | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
| 8. | 7r + 2 = 5(r – 4)7r + 2 = 5r – 202r + 2 = -20 2r = -22 r = -11 | 1 mark for correctly expanding brackets1 mark for 2r = -221 mark for correct answer | 3 |
| 9. |  v = u + 5tv – u = 5tv – u = t 5 | 1 mark for –u or ÷51 mark for correct answer | 2 |
| 10. | 6x – 3 < 9 6x < 12 x < 2 | 1 mark for 21 mark for correct inequality symbol used | 2 |
| 11. | 360 – (119 + 105 + 78) = 360 – 302 = 58º180 – 58 = 122º | 1 mark for subtracting 302º from 360º1 mark for subtracting 58º from 180º1 mark for correct answer | 3 |
| 12. | Correct sketch with all construction lines present | 1 mark for correct answer1 mark for construction lines | 2 |
| 13. |  | 1 mark for identifying C of E1 mark for an enlargement of scale factor 31 mark for fully correct enlargement1 mark for identifying x axis1 mark for fully correct reflection | 5 |
| 14. | $\sqrt{17^{2}-10^{2}}= \sqrt{289-100}= \sqrt{189}$ = 13.74772… = 13.7 cm | 1 mark for 17² and 10²1 mark for subtracting and square rooting1 mark for correctly rounded answer | 3 |
| 15. | 09 057 km10 mins | 1 mark for each correct answer | 3 |
| 16. | ½ x 4.5 x 6 x 10 = 13.5 x 10 = 135 cm³ | 1 mark for correctly calculating area of cross section1 mark for multiplying by depth1 mark for correct answer | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| 17. | Every member of the population has an **equal chance** of selectionThe sample contains the correct **proportion** for each group of the population | 1 mark for each correct answer | 2 |
| 18. | Positive correlationCorrect line segment that can be used as a line of best fitAccept answers between 45 and 50 | 1 mark for each correct answer | 3 |
| 19. |

|  |  |  |
| --- | --- | --- |
| Team | Tally | Frequency |
| ArsenalMan UtdChelseaLiverpoolMan CityAston VillaOtherNone |  |  |

 | 1 mark for at least 3 options, other and none1 mark for tally column1 mark for frequency column | 3 |
| 20. |  | 1 mark for correct answer for first choice1 mark for correct answers for second choice | 2 |