Band 3 – Test 3 Answers

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | + = + =  3 x 2 = x = = 8 | 1 mark for a correct common denominator  1 mark for correct answer  1 mark for correct improper fractions  1 mark for correct multiplication of fractions  1 mark for correct answer | 5 |
| 2. | 24 = 240 = 120  0.2 2 | 1 mark for correct fraction  1 mark for correct equivalent fraction  1 mark for correct answer | 3 |
| 3. | 10% = £4.50  5% = £2.25  15% = £6.75  £45 + £6.75 = £51.75 | 1 mark for calculating 15%  1 mark for adding 15% to £45  1 mark for correct answer | 3 |
| 4. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 65% |  | 0.72 |  |  | | 0.65 | 0.75 | 0.72 | 0.67 | 0.6 | |  |  |  |  |  | |  | 65% |  | 0.72 |  | | 1 mark for 3 correct equivalent FDPs  1 mark for correct order | 2 |
| 5. | 210 ÷ 3 = 70 km  3 + 4 + 4 = 11 parts  70 x 11 = 770 km | 1 mark for identifying value of 1 part  1 mark for calculating number of parts  1 mark for correct answer | 3 |
| 6. | 9.7 x 12.3 = 119.31 0.97 x 123000 = 119310 | 1 mark for each correct answer | 2 |
| 7. | 2.004875737 2.00 | 2 marks for correct calculation  1 mark for correct rounding | 3 |
| 8. | t10 p3 | 1 mark for each correct answer | 2 |
| 9. | 1/5 | Correct answer | 1 |
| 10. | 5t² - 10t | Correct answer | 1 |
| 11. | 7p + 2 = 5p + 8  2p + 2 = 8  2p = 6  p = 3 | 1 mark for 2r = -22  1 mark for correct answer | 2 |
| 12. | C = 10(n + 3) | 1 mark for n + 3  1 marks for x10 | 2 |
| 13. | x ≤ 3 | Correct answer | 1 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **x** | -2 | -1 | 0 | 1 | 2 | | **y** | -1 | 1 | 3 | 5 | 7 | | 1 mark for at least 2 y values correct  Or 2 marks for all 3 values correct  1 mark for coordinates plotted correctly  1 mark for straight line segment through coordinates | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
| 15. | 38º  Alternate angles are equal  109º  Base angles in an isosceles triangle are equal OR angles in a triangle sum to 180º OR angles on a straight line sum to 180º | 1 mark for each correct answer  1 mark for each correct reason | 4 |
| 16. | 076º | 1 mark for correct answer  1 mark for correct angle  1 mark for C correctly located | 3 |
| 17. | (12 x 10 x ½) – (3 x 5) = 60 – 15 = 45 cm² | 1 mark for correct area of triangle  1 mark for correct area of rectangle  1 mark for correct total area | 3 |
| 18. | 4 x 4 x 4 = 64 cm³ | 1 mark for volume ÷ 50  1 mark for correct answer | 2 |
| 19. | 87 ÷ 36 = 2.41666… = 2 hours and 25 minutes  09 25 | 1 mark for distance ÷ speed  1 mark for correct answer | 2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. | |  |  |  | | --- | --- | --- | | **Choice** | **Frequency** | **Angle** | | Full meal | 150 | 75º | | Hot snack | 240 | 120º | | Cold snack | 220 | 110º | | Packed lunch | 110 | 55º | | **Total** | **720** | **360º** | | 1 mark for ÷ 2 seen  1 mark for correctly calculating angles  1 mark for correctly drawn pie chart with labels | 3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Coin | Dice | | | | | | | |  | **1** | **2** | **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 | | **5** | 6 | 7 | 8 | 9 | 10 | 11 | | **6** | 7 | 8 | 9 | 10 | 11 | 12 |   P(9) = 4/36 | 1 mark for correctly completing sample space diagram  1 mark for identifying 36 possible outcomes  1 mark for 4 9s. | 3 |