Band 3 – Test 2 Answers

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | $\frac{2}{3}$ + $\frac{1}{7}$ = $\frac{14}{21}$ + $\frac{3}{21}$ = $\frac{17}{21}$2 $\frac{1}{4}$ ÷ 1 $\frac{5}{6}$ = $\frac{9}{4}$ x $\frac{6}{11}$ = $\frac{54}{44}$ = 1 $\frac{10}{44}$ = 1 $\frac{5}{22}$ | 1 mark for a correct common denominator1 mark for correct answer1 mark for correct improper fractions1 mark for correct multiplication of fractions1 mark for correct answer | 5 |
| 2. | 34 x 1734 x 17 = 5783.4 x 1.7 = 5.87 | 1 mark for multiplying correct integers1 mark for correct multiplication1 mark for correct location of dp | 3 |
| 3. |  10% = £42.00 5% = £21.00 2½% = £10.5017½% = £73.50£420 + £73.50 = £493.50 | 1 mark for calculating 17½%1 mark for adding 17½% to £4201 mark for correct answer | 3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 35% | $\frac{1}{4}$  | 0.4 | $\frac{1}{3}$  | $\frac{2}{5}$  |
| 0.35 | 0.25 | 0.4 | 0.33 | 0.4 |
|  |  |  |  |  |
| $\frac{1}{4}$  | $\frac{1}{3}$  | 35% | $\frac{2}{5}$ or 0.4 | $\frac{2}{5}$ or 0.4 |

 | 1 mark for 3 correct equivalent FDPs1 mark for correct order | 2 |
| 5. | 7 + 3 + 2 = 12£36 ÷ 12 = £37 x £3 = £21  | 1 mark for calculating total number of parts1 mark for calculating value of 1 part1 mark for correct answer | 3 |
| 6. | 1.3 x 1.7 = 2.21 22.1 ÷ 1700 = 0.013 | 1 mark for each correct answer | 2 |
| 7. | 1.962631579 1.96 | 2 marks for correct calculation1 mark for correct rounding | 3 |
| 8. | t8 m5 | 1 mark for each correct answer | 2 |
| 9. | 1/3  | Correct answer | 1 |
| 10. | x² + 3x | Correct answer | 1 |
| 11. | 7r + 2 = 5r – 202r + 2 = -20 2r = -22 r = -11 | 1 mark for 2r = -221 mark for correct answer | 2 |
| 12. | T = 35h + 50 | 1 mark for 35h1 marks for + 50 | 2 |
| 13. |  | Correct answer | 1 |
| 14.  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **x** | -2 | -1 | 0 | 1 | 2 | 3 |
| **y** | -5 | -2 | 1 | 4 | 7 | 10 |

 | 1 mark for at least 2 y values correctOr 2 marks for all 3 values correct1 mark for coordinates plotted correctly1 mark for straight line segment through coordinates | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
| 15. | 110ºCorresponding angles are equal35ºAngles on a straight line sum to 180º OR vertically opposite angles are equal OR angles in a triangle sum to 180º | 1 mark for each correct answer1 mark for each correct reason | 4 |
| 16. |  | 1 mark for each correct angle1 mark for R correctly located | 3 |
| 17. | (2 x 12) + (½ x 6 x 5) = 24 + 15 = 39 cm² | 1 mark for correct area of triangle1 mark for correct area of rectangle1 mark for correct total area | 3 |
| 18. | 200 ÷ (10 x 5) = 200 ÷ 50 = 4 cm | 1 mark for volume ÷ 501 mark for correct answer | 2 |
| 19. | 1200 ÷ 4 = 300 km/h | 1 mark for distance ÷ time1 mark for correct answer | 2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. |

|  |  |  |
| --- | --- | --- |
| **Region** | **Frequency** | **Angle** |
| Midlands | 22 | 88º |
| London | 36 | 144º |
| Southern England | 8 | 32º |
| Northern England | 24 | 96º |
| **Total** | **90** | **360º** |

 | 1 mark for x 4 seen1 mark for correctly calculating angles1 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(7) = 6/36 | 1 mark for correctly completing sample space diagram1 mark for identifying 36 possible outcomes1 mark for 6 7s. | 3 |