MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | X=2500 to the nearest 100.  Write down which one of these numbers could have not been x.  2450, 2449, 2495, 2499 |  |
| 2 | Simplify  2w -2x + 3w - 5x + x2 |  |
| 3 | DVDs are £5 each and have a buy one get one free offer. How many DVDs can you get for £35 |  |
| 4 | Work out 258% of 6300 |  |
| 5 | Toilet rolls are sold in packs of 4 for £1.89 and 9 for £3.99  Which pack is better value? |  |
| 6 | Calculate of 200 |  |
| 7 | What is the probability of rolling a 5 on an ordinary fair dice |  |
| 8 | Write down all the factors of 18 |  |
| 9 | A hotel charges £69 to stay per night, £5.99 for breakfast, £9.95 for an evening meal.  Jack stays for 4 nights, has 3 breakfasts and 2 evening meals.  How much does he pay altogether? |  |
| 10 | A lottery win is split between Ben, Amaan and Sophie in the ratio 2:3:5. What fraction of the win does Amaan get? |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | X=2550 to the nearest 10.  Write down which one of these numbers could have not been x.  2552, 2549.5, 2555, 2548 |  |
| 2 | Solve  2(w+5)=14 |  |
| 3 | DVDs are £7 each and have a buy 2 get one free offer. How many DVDs can you get for £50 |  |
| 4 | Work out 169% of 5200 |  |
| 5 | Toilet rolls are sold in packs of 4 for £6 and 7 for £10.43  Which pack is better value? |  |
| 6 | Calculate of 108 |  |
| 7 | What is the probability of rolling a prime number on an ordinary fair dice |  |
| 8 | Write down the LCM of 9 and 12 |  |
| 9 | A hotel charges £59 to stay per night, £6.99 for breakfast, £11.95 for an evening meal.  Olivia stays for 3 nights, has 3 breakfasts and 2 evening meals. She is charged £233.82. Is this correct and if not what might the error be? |  |
| 10 | A lottery win is split between Ben, Amaan and Sophie in the ratio 3:4:1. What fraction of the win does Sophie get? |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | X=12.2 to 1dp.  Write down which one of these numbers could have not been x.  12.249, 12.1499, 12.1984, 12.235 |  |
| 2 | Solve  3(2x-3)=9 |  |
| 3 | Apples are 55p and pears are 60p. Adam needs 7 apples and 5 pears. How much change will he get from a £10 note? List the change he will get using the lowest number of coins. |  |
| 4 | Work out 38% of 78200 |  |
| 5 | Perfume is sold for 40ml for £49.50 and 75ml for £93.  Which bottle is better value? |  |
| 6 | Calculate of 147 |  |
| 7 | Which is more likely; rolling an odd number or rolling a factor of 12 on a fair 6 sided dice |  |
| 8 | Represent 195 as a product of prime factors |  |
| 9 | An electricity meter measured 1200units at the beginning of the month and 1524units at the end. Electricity costs 10p per unit  How much is the bill for the month? |  |
| 10 | A lottery win is split between Ben, Amaan and Sophie in the ratio 6:7:9. What fraction of the win does Ben get, simplify your answer? |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | Round 2437.89 to 3 significant figures |  |
| 2 | Solve  5(4x+3)=135 |  |
| 3 | Ashley is saving up to buy a mountain bike that costs £250. He baby-sits each week for 6 hours for £4.50 an hour, and works on a Saturday for £33. He saves ¾ of his weekly earnings. How many weeks will it take him to save up for his bike? |  |
| 4 | Work out 154% of 78200 |  |
| 5 | A supermarket sells bottled water in three sizes  400ml for 38p, 2l for 98p or 5l for £2.50.  Which bottle is better value? |  |
| 6 | Calculate of 153 |  |
| 7 | Which is more likely; rolling a prime number or rolling a factor of 9 on a fair 6 sided dice |  |
| 8 | Represent 220 as a product of prime factors |  |
| 9 | An electricity meter measured 1223units at the beginning of the month and 1638 units at the end. Electricity costs 12p per unit  How much is the bill for the month? |  |
| 10 | A length of wood is cut into two pieces in the ratio 3:7. What fraction of the original length is the shorter piece? |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | Order these decimals from largest to smallest  1.29, 1.189, 1.289, 1.100001 |  |
| 2 | Solve  4(5t+8)=12 |  |
| 3 | Jemma is saving up to buy a mountain bike that costs £330. She baby-sits each week for 7 hours for £5.75 an hour, and works on a Saturday for £24.25. She saves 4/5 of her weekly earnings. How many weeks will it take her to save up for her bike? |  |
| 4 | Work out 22.5% of 600 |  |
| 5 | A supermarket sells boxes of corn flakes in two sizes;  750g for £1.64 and 0.5kg for £1.10  Which box is better value? |  |
| 6 | Calculate of 147 |  |
| 7 | Which is more likely; rolling an odd number or rolling a number less than 3 on a fair 6 sided dice |  |
| 8 | Represent 50 as a product of prime factors |  |
| 9 | There are 48 cans of soup on a crate. A supermarket has a delivery of 110 crates for £1980 and sells a can for 41p. How much profit does the supermarket make on the delivery? |  |
| 10 | Divide £240 in the ratio 3:5:12 |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | X=1200 to 2sf.  Write down which one of these numbers could have not been x.  1151, 12491, 1189.29, 1249 |  |
| 2 | Solve  2x+3=x+5 |  |
| 3 | John buys a mountain bike. He pays a deposit of 10% of the cash price followed by 24 monthly payments of £15. In total he pays £395. What was the cash price of the bike? |  |
| 4 | Work out 27.5% of 200 |  |
| 5 | Mary and Hannah are arguing over who is better at maths.  Mary scored 49/80 on a test and Hannah scored 60/100 on a test of the same standard. Who did better? |  |
| 6 | Calculate of 96 |  |
| 7 | Which is more likely; rolling square number or rolling a multiple of 3 on a fair 6 sided dice |  |
| 8 | Represent 502 as a product of prime factors |  |
| 9 | There are 36 cans of soup on a crate. A supermarket has a delivery of 92 crates for £1250.10 and sells a can for 43p. How much profit does the supermarket make on the delivery? |  |
| 10 | Rewrite the following scale as a ratio, as simply as possible;  1cm to 0.25m |  |
| Total out of 10 | |  |

MASTERS

Foundation Topic

|  |  |  |
| --- | --- | --- |
| Q | Question | Answer |
| 1 | Round 12.39 to 3 significant figures |  |
| 2 | Solve  8k+-1=6k-5 |  |
| 3 | Alia buys a mountain bike. She pays a deposit of 10% of the cash price followed by 36 monthly payments of £12.50. In total she pays £495. What was the cash price of the bike? |  |
| 4 | Work out 115% of 240 |  |
| 5 | A supermarket sells shampoo in two sizes;  Bottle containing 400ml for £1.15 and a 550ml bottle for £1.60.  Which bottle is the best value? |  |
| 6 | Calculate of 144 |  |
| 7 | Which is more likely; rolling a number greater than 5 or rolling a prime number on a fair 6 sided dice |  |
| 8 | Represent 842 as a product of prime factors |  |
| 9 | A first-class letter costs 55p to post and a second class letter costs 32p. What change will I receive after paying with £20 note for 12 first class and 19 second class letters? |  |
| 10 | Rewrite the following scale as a ratio, as simply as possible;  2cm to 5km |  |
| Total out of 10 | |  |