Foundation Topic

MASTERS

Homework 1

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 $2w - 2x + 3w - 5x + x^2$	
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 $\frac{3}{5}$ 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		

Foundation Topic

MASTERS

Homework 2

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 $\frac{7}{9}$ 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		

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Homework 3

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 $\frac{2}{7}$ 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		

Foundation Topic

MASTERS

Homework 4

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 $\frac{5}{9}$ 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		

Foundation Topic

MASTERS

Homework 5

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 $\frac{2}{3}$ 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		

Foundation Topic

MASTERS

Homework 6

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 $\frac{3}{8}$ of 96	
7	Which is more likely; rolling square number or rolling a multiple of 3 on a fair 6 sided dice	
8	Represent 50^2 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		

Foundation Topic

MASTERS

Homework 7

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 $\frac{1}{6}$ 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 84^2 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		