

Year 5 Maths Homework:

Multiplication and Division Term 1

1. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
 - a) Tick or cross to show if the numbers are multiples of the given number (the first one is done for you).

number	multiple of 3	multiple of 5	multiple of 6	multiple of 8
24	✓	x	✓	✓
75				
120				
82				

- b) List all of the factors of these numbers:

number	factors
12	
20	

- c) Write all the **common** factors of each pair of numbers:

numbers	factors
12 and 18	
20 and 24	

2. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.

a) Draw a circle around all **prime** numbers up to 50;

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

b) What are the prime factors of these numbers?

numbers	prime factors
12	
30	

3. Multiply numbers up to 4 digits by a one or two-digit number using a formal written method, including long multiplication for two-digit numbers.

Multiply these numbers, using a formal written method:

245×8	3353×6
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4. Multiply and divide numbers mentally drawing upon known facts.

Use your knowledge of place value to multiply and divide the following:

$600 \times 500 =$	$1500 \div 30 =$
$80 \times 20 \times 60 =$	$3000 \div 60 =$
$1600 \times 40 =$	$200\,000 \div 40 =$

5. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

Divide the following, using a formal short method:

$456 \div 6$	$1264 \div 8$
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6. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.

a) Multiply the following:

number	$\times 10$	$\times 100$	$\times 1000$
54			
8.3			

b) Divide the following:

number	$\div 10$	$\div 100$	$\div 1000$
3876			
123.9			
1478.3			

7. Recognise and use square numbers and cube numbers, and the notation for squared (2) and (3).

a) What is the next square number after 36?

b) What is the cubed number between 8 and 64?

8. Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Circle whether each statement is true or false (use the space in the box to work out the answers):

9. Solve problems involving addition, subtraction, multiplication and division

All multiples of 10 are multiples of 2 and 5.	true / false
$5^2 + 4^3 > 3^3 + 6^2$	true / false
The third squared number added to the fourth cubed number is an even number.	true / false
All factors of 45 are odd.	true / false

and a combination of these, including understanding the meaning of the equals sign.

a) Fill in the missing boxes:

$$70 \times \boxed{} = 4900$$

$$(\boxed{} \times \boxed{}) \div 80 = 110$$

$$\boxed{} \div 100 = 0.06$$

10. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Here are the ingredients to make 12 cupcakes:



110g butter
110g caster sugar
110g plain flour
2 table spoons baking powder
 $\frac{1}{4}$ teaspoon salt
2 medium eggs
1 teaspoon vanilla extract

For their class party, Jodie wants to make 48 cakes. She already has baking powder, salt and vanilla extract in her cupboard. She needs to buy butter, caster sugar, flour and eggs.

a) Work out the cost of those items.

Butter: £1.50 for 250g pack

Caster sugar: £1 for a 200g bag

Plain flour: 75p for 500g bag

Eggs: 6 for £2

Remember you need to have enough of the ingredients!