

PLACE VALUE AND COLUMN CALCULATION

Build, read and split numbers, then add and subtract in columns.



NAME _____ CLASS _____ DATE _____

LEARNING GOAL

I can use hundreds, tens and ones to build, split and add three-digit numbers.

SUCCESS CRITERIA

- ☐ I can say what each digit in a three-digit number is worth.
- ☐ I can partition a number into hundreds, tens and ones.
- ☐ I can add and subtract in columns, exchanging when I need to.

1 Build it on the mat

2 marks

Draw 243 with flats, rods and cubes in the right columns. Then write each digit in its box.

H Hundreds a flat is worth 100	T Tens a rod is worth 10	O Ones a cube is worth 1
DIGIT	DIGIT	DIGIT

2 What number is shown?

3 marks

Count the flats, rods and cubes. Watch out: one picture has no tens, so you need a zero.

a

Number: _____

b

Number: _____

c

Number: _____

MATHS WORDS

digit

value

hundreds

tens

ones

zero

partition

exchange

Zero holds the place. In 207 the 0 tells us there are no tens. Without it, 207 would turn into 27.

SPLIT AND ADD IN COLUMNS



3 Partition it

3 marks

Split each number into hundreds, tens and ones. The first one is done for you.

e.g. $356 = 300 + 50 + 6$

a $472 = \square + \square + \square$

b $608 = \square + \square + \square$

c $\square = 500 + 20 + 9$

4 Worked example: column addition with an exchange

H	T	O
2	4	7
+	1	3
3	8	2
	1	

$247 + 135 = 382$

1. Line up the digits. One digit in each square, ones under ones.
2. Start with the ones. $7 + 5 = 12$, which is 1 ten and 2 ones. Write 2.
3. Exchange the ten. Write a small 1 under the line in the tens column.
4. Add the tens, then the hundreds. $4 + 3 + 1 = 8$ tens. $2 + 1 = 3$ hundreds.

5 Column addition

4 marks

Start with the ones. Made 10 or more? Exchange: write the 1 under the line.

H	T	O
3	1	4
+	2	5

H	T	O
2	3	9
+	1	4

H	T	O
1	6	5
+	2	7

H	T	O
4	5	6
+	2	7

6 Spot the mistake

2 marks

A pupil worked out $268 + 157$ and got 325. Explain the mistake, then do it correctly.

H	T	O
2	6	8
+	1	5
3	2	5
	1	

PUPIL'S ANSWER

The mistake is in the _____ column because ...

H	T	O
2	6	8
+	1	5

YOUR ANSWER

SUBTRACT AND SOLVE



7 Column subtraction

3 marks

Not enough to take away? Exchange from the next column: cross out its digit, write one less above it.

e.g.

	H	T	O
		4	
	3	~~5~~	12
-	1	2	7
	2	2	5

2 - 7? Exchange a ten: 12 - 7 = 5. Then 4 - 2 and 3 - 1.

a

	H	T	O
	4	8	6
-	2	5	3

b

	H	T	O
	5	4	1
-	2	1	6

c

	H	T	O
	6	2	3
-	3	8	1

8 Library books

2 marks

a The school library has **264** books. A delivery brings **158** more. How many books does the library have now?

Answer: _____ books

b Then pupils borrow **135** books. How many are left on the shelves?

Answer: _____ books

a

	H	T	O

SIGN: + OR -

b

	H	T	O

SIGN: + OR -

9 Missing digits

2 marks

a

	H	T	O
	4		6
+	2	5	
	7	1	3

b

	H	T	O
	5		4
-	2	5	
	3	1	8

Write the missing digit in each dashed square. Start with the ones.

In b, I knew there was an exchange because ...



GO FURTHER

Make the **largest** and **smallest** numbers with these cards. Find the difference.

3 5 8 _____ - _____ = _____

CHECK YOURSELF

- ☐ I put one digit in each square.
- ☐ I started with the ones every time.
- ☐ I checked 8a: my answer - 158 = 264.

☐ Not yet ☐ Getting there ☒ Got it