

Luna's Space Adventure

Grade 3 · Patterns in tables · 3.OA.D.9

Name _____

Date _____



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Finish the table Fill in the empty boxes. Look for patterns as you go.

×	1	2	3	4	5	6	7	8	9	10
1	1	2		4	5		7	8	9	10
2	2	4					14		18	20
3	3		9	12	15			24		
4	4		12					32		40
5	5		15		25		35		45	50
6	6	12	18	24	30	36	42			60

Spot the pattern Circle the answer. Check it in the table.

The 4s row is the 2s row...

doubled **halved**

Every number in the 4s row is...

even **odd**

An odd number times an odd number is...

even **odd**

The 5s row ends in...

0 or 5 **any digit**

An addition table Each row goes up by one. Why?

+	1	2	3	4	5	6	7	8	9	10
1	2	3	4			7	8		10	11
2		4	5	6	7	8			11	
3		5		7	8	9	10	11		13
4		6			9	10		12	13	14

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ANSWER KEY



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2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60

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GUIDE

1 What this sheet practises

Finding patterns in multiplication and addition tables, and explaining them: every row grows by the same amount, and even times any number is even.

2 A problem from the sheet, worked out

Finish the table Fill in the empty boxes. Look for patterns as you go.

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2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50

How: Fill each box by multiplying its row and column numbers. Then look along a row or down a column: each step adds the same amount.

3 Words to know

pattern something that repeats or grows the same way

row a line going across

column a line going down

even a number that splits into two equal groups

4 Watch for

- Adding the row and column numbers instead of multiplying.
- Losing their place and reading the wrong row.
- Naming a pattern without checking it in the table.

5 Where it fits

BEFORE

2.OA.C.3

Tell whether a group of up to 20 objects is odd or even.

THIS SHEET

3.OA.D.9

Find and explain patterns in addition and multiplication tables.

NEXT

4.OA.C.5

Make and extend number and shape patterns that follow a rule.

6 Helping at home

Ask what they notice in a times table: the 5s end in 0 or 5, and the digits of the 9s add up to 9.