

Luna's Space Adventure

Grade 5 · Two patterns · 5.OA.B.3

Name _____

Date _____



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

Two rules Rule A: start at 0, add 1. Rule B: start at 0, add 3.

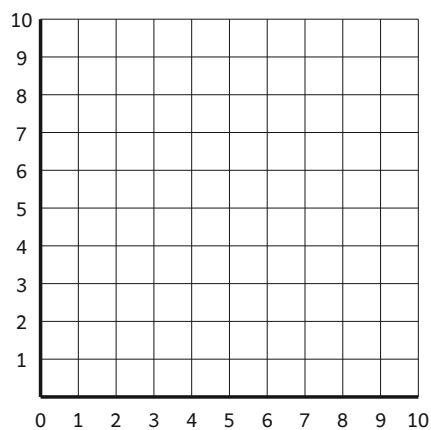
Rule A: _____

Rule B: _____

Pairs (A, B): _____

Each B term is how many times the A term? _____

Graph the pairs Plot each (A, B) pair and join them.



Points plotted:

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ANSWER KEY



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

Two rules Rule A: start at 0, add 1. Rule B: start at 0, add 3.

Rule A:

0, 1, 2, 3, 4

Rule B:

0, 3, 6, 9, 12

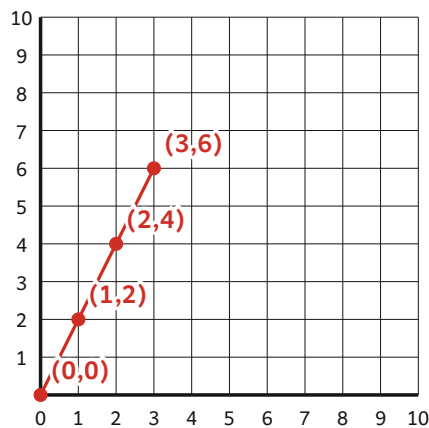
Pairs (A, B):

(0, 0) (1, 3) (2, 6) (3, 9) (4, 12)

Each B term is how many times the A term?

3

Graph the pairs Plot each (A, B) pair and join them.



Points plotted:

4

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GUIDE

① What this sheet practises

Making two number patterns from two rules, pairing up their terms, and spotting how the patterns are related, such as each B term being twice the A term.

② A problem from the sheet, worked out

Two rules Rule A: start at 0, add 1. Rule B: start at 0, add 3.

Rule A:

0, 1, 2, 3, 4

Rule B:

0, 3, 6, 9, 12

Pairs (A, B):

(0, 0) (1, 3) (2, 6) (3, 9) (4, 12)

Each B term is how many times the A term?

3

How: Follow each rule from its start to write the terms. Pair the terms in the same position as (A, B). Then look across the pairs: B is always the same number of times A.

③ Words to know

rule tells how to get the next term

term one number in a pattern

ordered pair (A, B): two numbers in a set order

corresponding in the same position in both lists

④ Watch for

- Starting a pattern at the number added instead of at 0.
- Pairing terms from different positions, like A's third term with B's fourth.
- Saying B is always 5 more than A: the gap grows, but B is always 2 times A.

⑤ Where it fits

BEFORE

4.OA.C.5

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

THIS SHEET

5.OA.B.3

Make two patterns from rules, pair them up and graph the pairs.

⑥ Helping at home

Make two piles of coins: one grows by 1 each turn, the other by 3. Write the pairs as you go and ask how the second pile compares with the first.