Two Number Patterns

Name: _____

Grade 5 · Make two patterns from two rules, compare the terms that line up and write ordered pairs

How it works

Pattern A:
start at 0, add 3

Pattern B:
start at 0, add 6

0	3	6	9	12
0	6	12	18	24

Make each pattern from its rule. Then compare the terms that line up.
Each term in B is **2 times** the term in A above it.
Terms that line up make **ordered pairs**: (0, 0), (3, 6), (6, 12), (9, 18), (12, 24).

A. Finish both patterns. Then compare the terms.

1. A: start at 0, add 2

0				

B: start at 0, add 6

0				

Each term in B is _____ times the term in A.

2. A: start at 0, add 5

0				

B: start at 0, add 10

0				

Each term in B is _____ times the term in A.

3. A: start at 0, add 3

0				

B: start at 0, add 12

0				

Each term in B is _____ times the term in A.

4. A: start at 0, add 1

0				

B: start at 0, add 5

0				

Each term in B is _____ times the term in A.

B. Make both patterns. Write the first four ordered pairs (term in A, term in B).

5. A: start at 0, add 5
B: start at 0, add 10

(___ , ___) (___ , ___) (___ , ___) (___ , ___)

6. A: start at 0, add 4
B: start at 0, add 1

(___ , ___) (___ , ___) (___ , ___) (___ , ___)

C. Think about it.

7. Pattern A: start at 0, add 4. Pattern B: start at 0, add 8. What is the 6th term of each pattern? (0 is the 1st term.) A: _____ B: _____

8. Pattern A: start at 0, add 5. Pattern B: start at 0, add 15. One term in A is 30. What is the term in B that lines up with it? _____

9. Pattern A: start at 1, add 1. Pattern B: start at 4, add 1. Each term in B is how much more than the term in A? _____

Two Number Patterns (Answer Key)

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How it works

Pattern A:
start at 0, add 3

Pattern B:
start at 0, add 6

0	3	6	9	12
0	6	12	18	24

Make each pattern from its rule. Then compare the terms that line up.
Each term in B is **2 times** the term in A above it.
Terms that line up make **ordered pairs**: (0, 0), (3, 6), (6, 12), (9, 18), (12, 24).

A. Finish both patterns. Then compare the terms.

1. A: start at 0, add 2

0	2	4	6	8

B: start at 0, add 6

0	6	12	18	24

Each term in B is **3** times the term in A.

2. A: start at 0, add 5

0	5	10	15	20

B: start at 0, add 10

0	10	20	30	40

Each term in B is **2** times the term in A.

3. A: start at 0, add 3

0	3	6	9	12

B: start at 0, add 12

0	12	24	36	48

Each term in B is **4** times the term in A.

4. A: start at 0, add 1

0	1	2	3	4

B: start at 0, add 5

0	5	10	15	20

Each term in B is **5** times the term in A.

B. Make both patterns. Write the first four ordered pairs (term in A, term in B).

5. A: start at 0, add 5
B: start at 0, add 10

(**0** , **0**) (**5** , **10**) (**10** , **20**) (**15** , **30**)

6. A: start at 0, add 4
B: start at 0, add 1

(**0** , **0**) (**4** , **1**) (**8** , **2**) (**12** , **3**)

C. Think about it.

7. Pattern A: start at 0, add 4. Pattern B: start at 0, add 8. What is the 6th term of each pattern? (0 is the 1st term.)
A: **20** B: **40**

8. Pattern A: start at 0, add 5. Pattern B: start at 0, add 15. One term in A is 30. What is the term in B that lines up with it?
90

9. Pattern A: start at 1, add 1. Pattern B: start at 4, add 1. Each term in B is how much more than the term in A?
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