

Generating Patterns and Graphing Relationships

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 2 and add 2

Sequence y: Start at 1 and add 1

Fill in the blanks with correct numbers.

1. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 1 and add 8

Sequence y: Start at 2 and add 16

Fill in the blanks with correct numbers.

2. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 10 and add 2

Sequence y: Start at 40 and add 8

Fill in the blanks with correct numbers.

3. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 4 and add 1

Sequence y: Start at 20 and add 5

Fill in the blanks with correct numbers.

4. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 2 and multiply by 2

Sequence y: Start at 14 and multiply by 2

Fill in the blanks with correct numbers.

5. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 15 and subtract 4

Sequence y: Start at 120 and subtract 32

Fill in the blanks with correct numbers.

6. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 20 and subtract 2

Sequence y: Start at 80 and subtract 8

Fill in the blanks with correct numbers.

7. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 12 and add 6

Sequence y: Start at 2 and add 1

Fill in the blanks with correct numbers.

8. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 4 and add 4

Sequence y: Start at 1 and add 1

Fill in the blanks with correct numbers.

9. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Given below are the starting numbers and the rules for two sequences of numbers:

Sequence x: Start at 30 and add 5

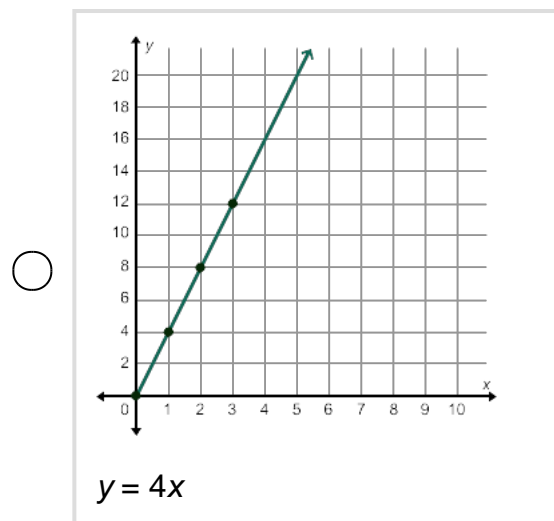
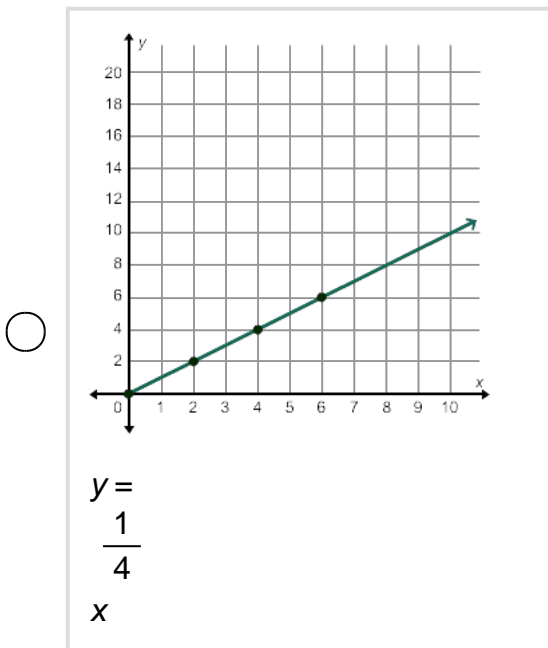
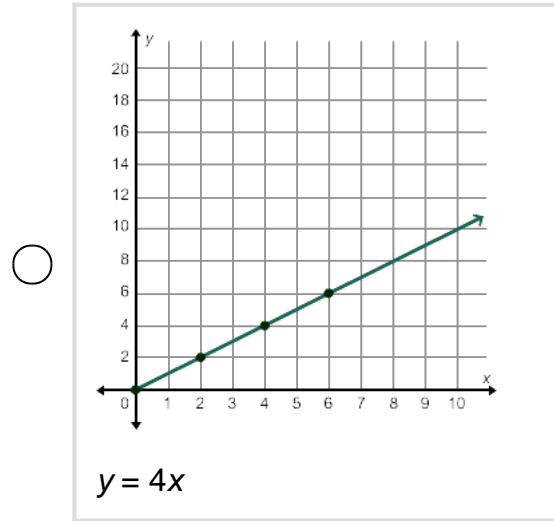
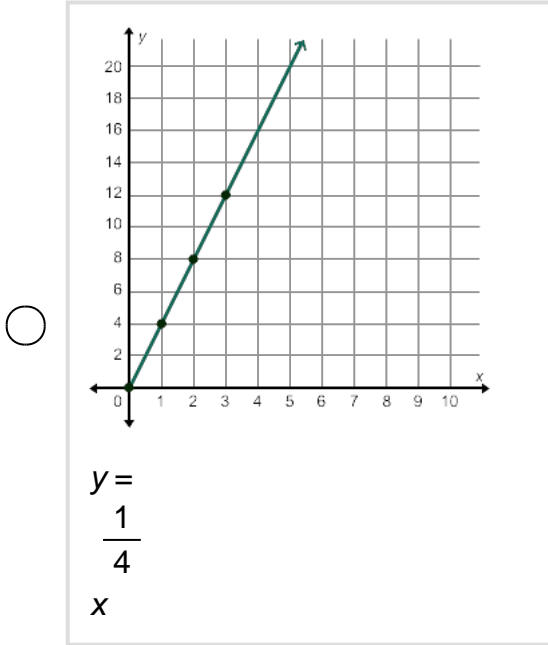
Sequence y: Start at 6 and add 1

Fill in the blanks with correct numbers.

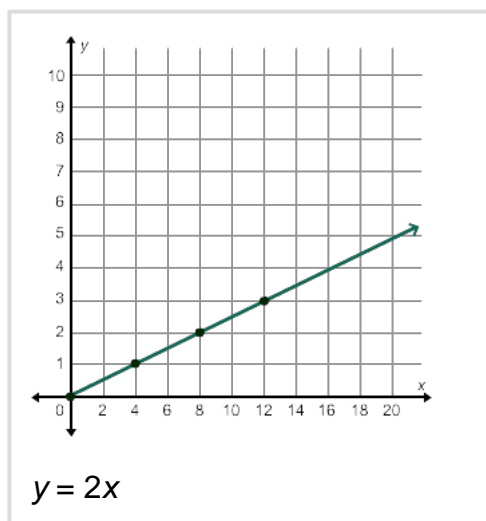
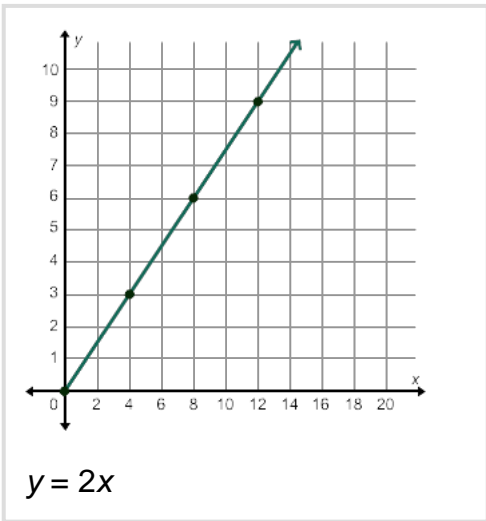
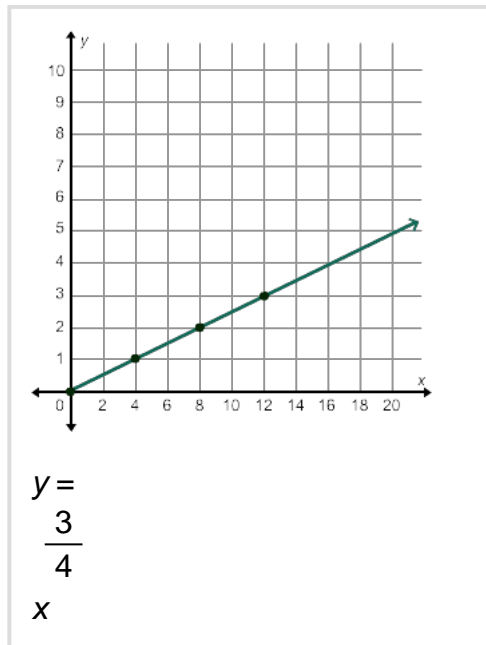
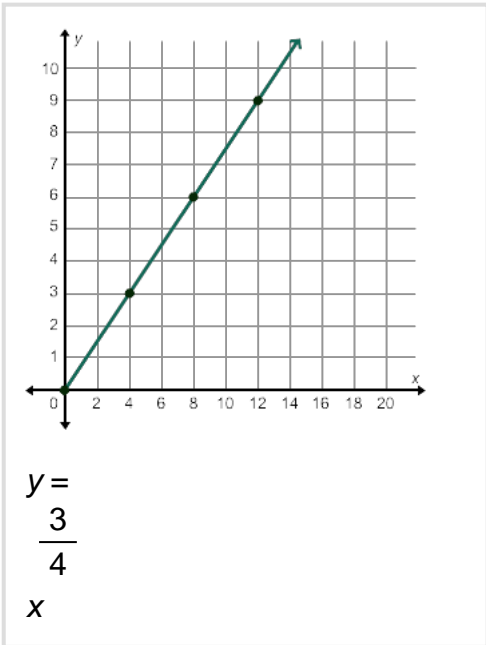
10. a. The first four terms in the sequence x are , , , and .
- b. The first four terms in the sequence y are , , , and .
- c. The terms in the sequence y are times the corresponding terms in the sequence x.

Form the ordered pairs from the corresponding first four terms of the given sequences x and y .
 Then, identify the option which correctly shows the relationship between the sequences and the graph of the ordered pairs.

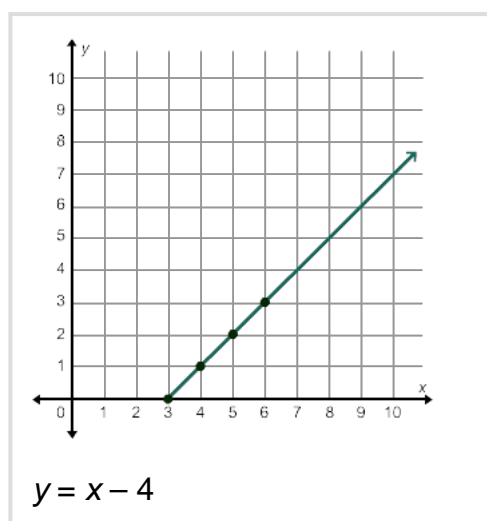
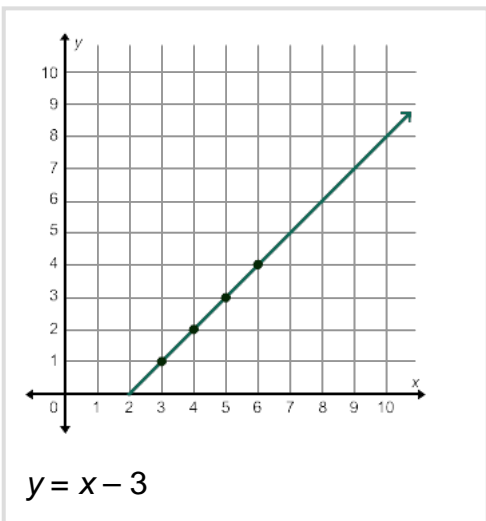
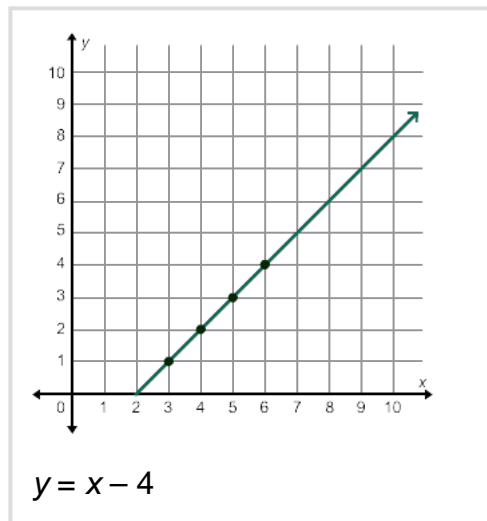
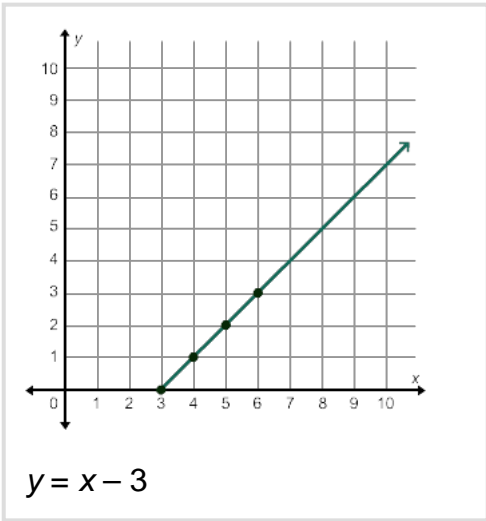
11. Sequence x : Start at 0 and add 1
 Sequence y : Start at 0 and add 4



12. Sequence x: Start at 0 and add 4
 Sequence y: Start at 0 and add 3

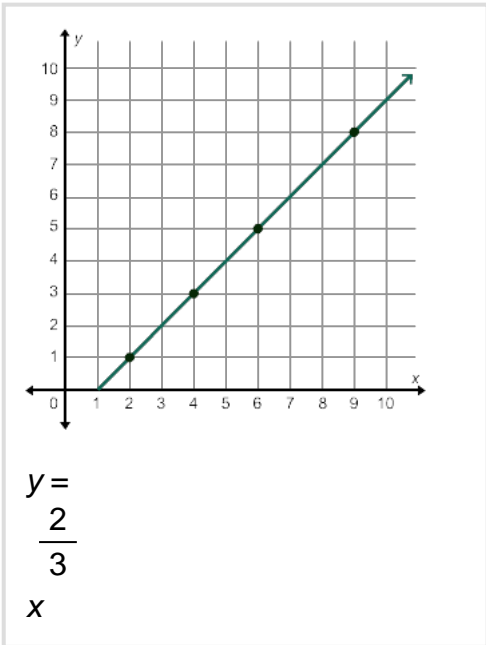


13. Sequence x: Start at 3 and add 1
Sequence y: Start at 0 and add 1

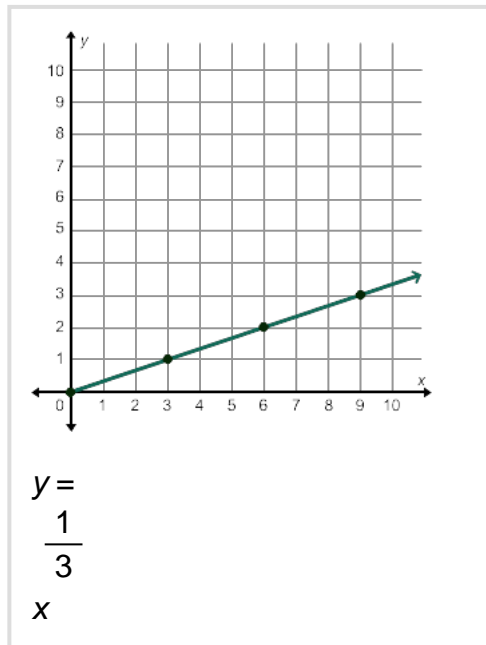


14. Sequence x: Start at 0 and add 3
 Sequence y: Start at 0 and add 1

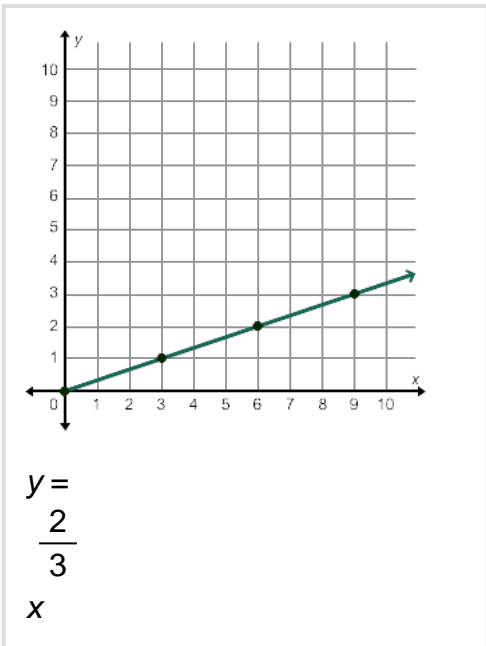
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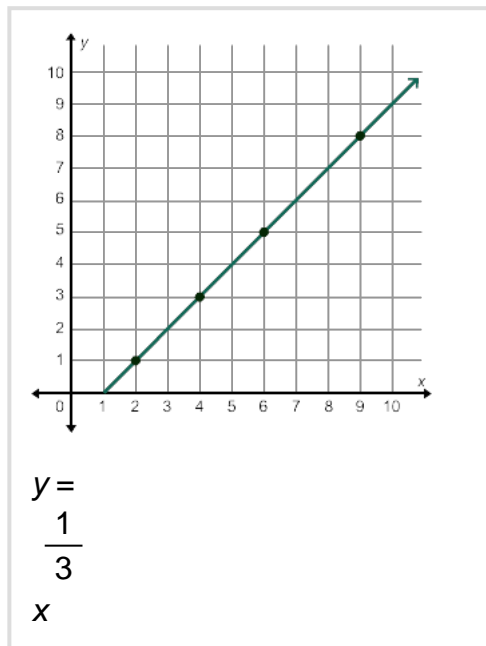
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15. Sequence x: Start at 5 and add 1
Sequence y: Start at 2 and add 1

