ANSWER KEY

Name: _____ **#:** _____ **Date:** _____

Extra Practice: Prime or Composite? 1-100

Prime Number - a number that only has two factors, 1 and itself.
example: 7 is a prime number because it's only factors are 1 and 7.

Composite Number - a number that has more than two factors.
example: 12 is a composite number because it has more than two factors. It's factors are 1, 2, 3, 4, 6, and 12.

21

Draw all the possible arrays for 21. Label the dimensions.

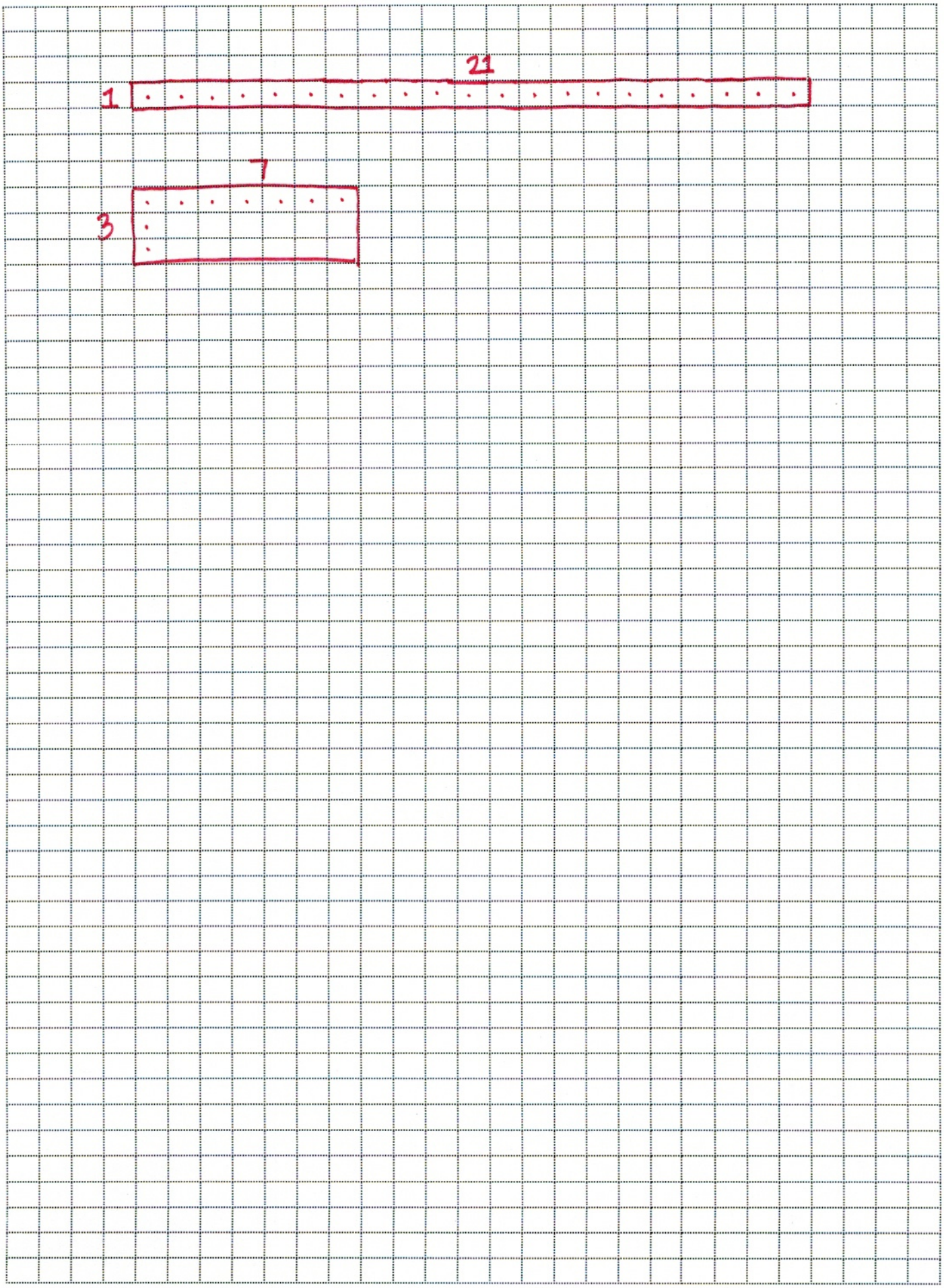
(use grid paper →)

List all the factors of 21.

(1, 21)
(3, 7)

Select the correct words to complete the sentence:

The number 21 is composite because it has more than two factors.
(prime / composite) (only / more than)


21
1
7
3

31

Draw all the possible arrays for 31. Label the dimensions.

(use grid paper →)

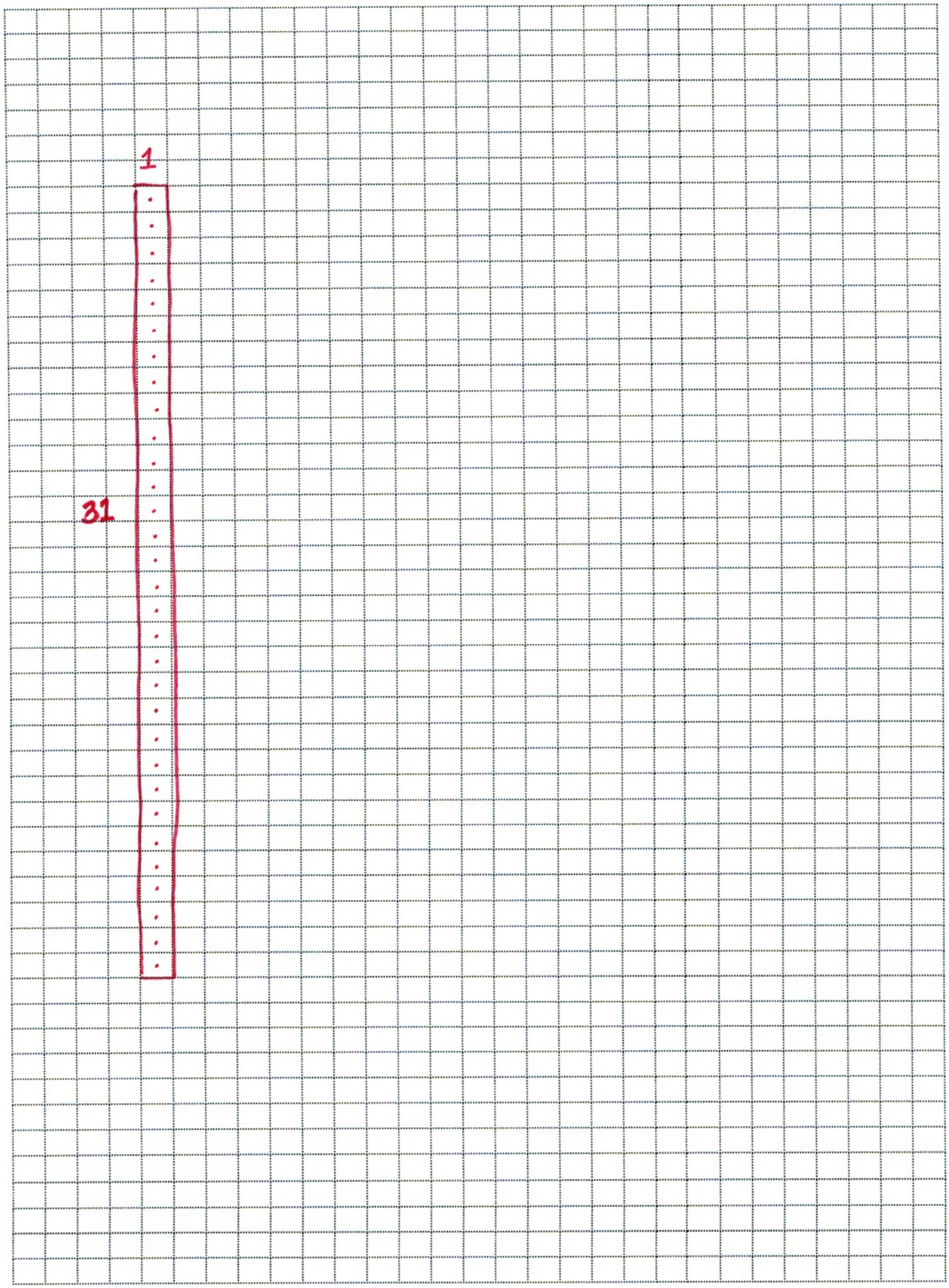
List all the factors of 31.

(1, 31)

Select the correct words to complete the sentence:

The number 31 is prime because it has only two factors.

(prime / composite) (only / more than)


1
31

25

Draw all the possible arrays for 25. Label the dimensions.

(use grid paper →)

List all the factors of 25.

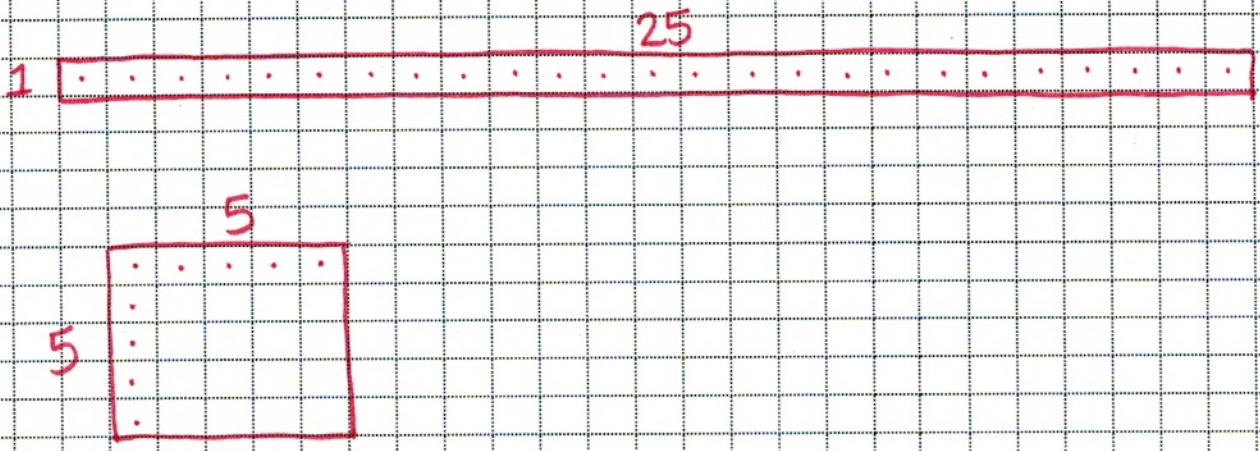
(1, 25)

(5, 5)

Select the correct words to complete the sentence:

The number 25 is composite because it has more than two factors.

(prime / ~~composite~~) (only / more than)


25
1
5
5

48

Draw all the possible arrays for 48. Label the dimensions.

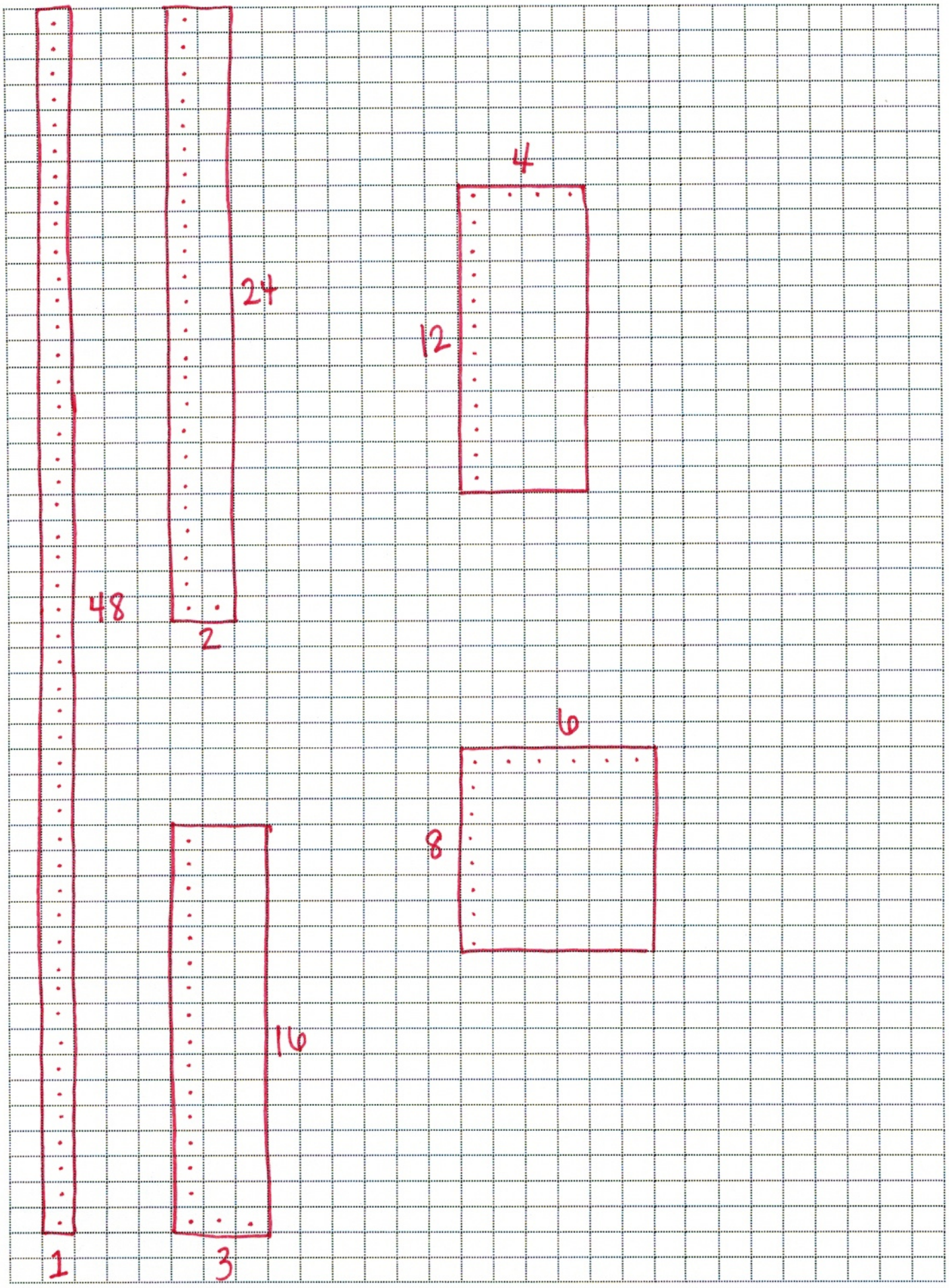
(use grid paper →)

List all the factors of 48.

(1, 48)
(2, 24)
(3, 16)
(4, 12)
(6, 8)

Select the correct words to complete the sentence:

The number 48 is composite because it has more than two factors.
(prime / ~~composite~~) (only / ~~more than~~)


4
12
24
48
2
6
8
16
1
3

49

Draw all the possible arrays for 49. Label the dimensions.

(use grid paper →)

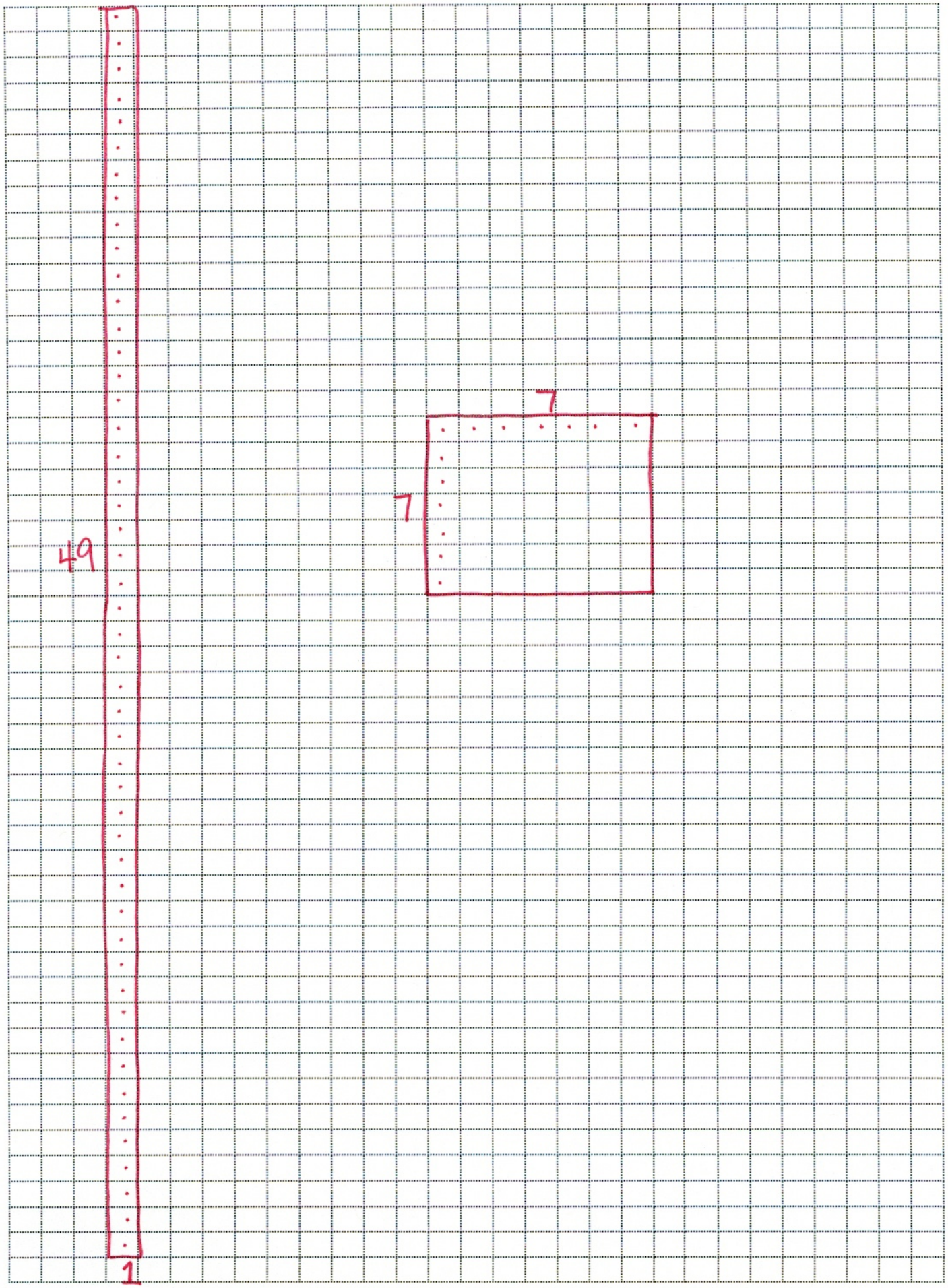
List all the factors of 49.

(1, 49)

(7, 7)

Select the correct words to complete the sentence:

The number 49 is composite (prime / ~~composite~~) because it has more than (only / ~~more than~~) two factors.


49
1
7
7

95

95 is a **COMPOSITE** number because it has more than two factors. How could you figure out that 95 is a composite number **without** finding all of its factors? Explain your thinking below.

I know that all numbers that end in 5 or 0 are multiples of 5. So, 5 times something must equal 95. That means that 1, 95, 5, and somethin must be factors of 95. Since I know that 95 has more than two factors, I know it is composit

Extend Your Thinking:

Are all even numbers composite? Why or why not? Use an example to explain your thinking.

Yes, all even numbers are composite because 2 is a factor of all even numbers.

Example: 10 is composite because it's factors are (1, 10) and (2, 5). It has more than two factors so it's composi

Are all odd numbers prime? Why or why not? Use an example to explain your thinking.

No, not all odd numbers are prime. 2 is not a factor of any odd number, <u>but</u> it might have other factors besides 1 and itself.

Example: 9 is odd but it's also composite because its factors are (1, 9) and (3, 3). More than two factors means that it's composite.