

Additional Practice 7-1

Understand Factors

Another Look!

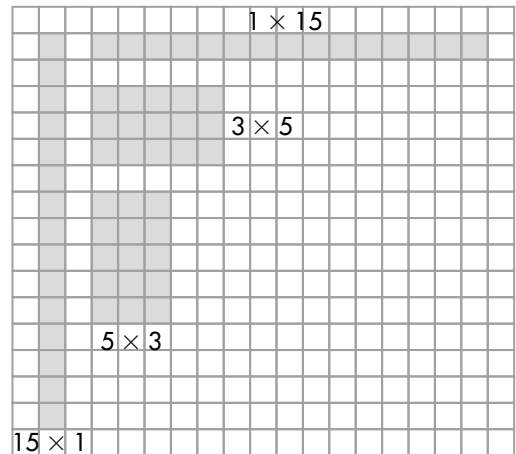
Mark is rearranging 15 desks in his classroom. Use the grid to show all the ways the desks could be arranged in a rectangular array. What are the factor pairs of 15?



A grid can help you find the factors of a number.

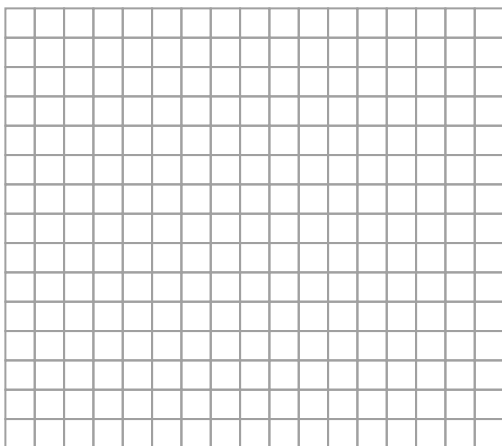
Mark can arrange the desks in 4 different ways.

The factor pairs of 15 are 1×15 and 3×5 .

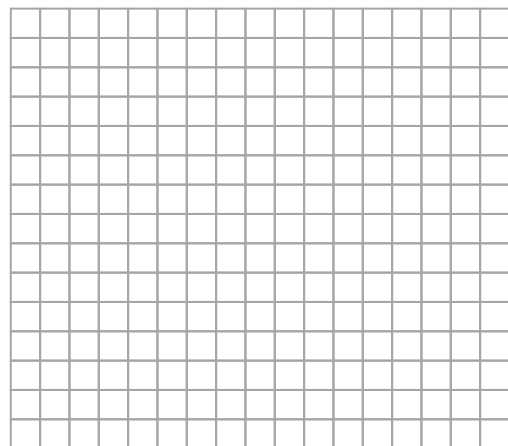


For 1–2, find all the possible arrays for each number. Use the arrays to help write the factor pairs.

1. 13



2. 10



For 3–8, use grids to find the factor pairs for each number.

3. 17

4. 37

5. 42

6. 29

7. 33

8. 48




9. enVision® STEM Solar panels use the sun's energy to generate power. A town wants to install 28 solar panels in an array. What are all the possible ways the panels could be installed?


10. Use grids to draw all the possible arrays for 5, 7, and 11. What do you notice about the arrays for these numbers?

11. Critique Reasoning Rob says all numbers have an even number of factors. Marcia says some numbers have an odd number of factors. Who is correct? Explain.

12. Higher Order Thinking Find all the factors of 38, 39, and 40. Do they have any factors in common? Explain how you can tell if some numbers have factors in common without finding the factors.

 **Assessment Practice**

13. Randall has 18 framed photos of African animals that he wants to hang on the family-room wall. What are all the ways Randall can hang the pictures in an array?  4.OA.2.4.a

14. Molly has 20 tomato plants to arrange in her garden. What are all the ways Molly can arrange the tomato plants in an array?  4.OA.2.4.a

Rows	Pictures in Each Row
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Rows	Plants in Each Row
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>