

## Prime and Composite Numbers

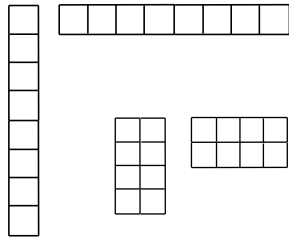
A **prime number** has exactly two factors, 1 and the number itself.

A **composite number** has more than two factors.

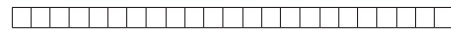
The number 1 is a special number because it is neither prime nor composite. It has only 1 factor, 1.

Make arrays to find the factors. Write *prime* or *composite* for each number.

1. 8



2. 23



3. 35

4. 9

5. 24

6. 11

## Prime and Composite Numbers

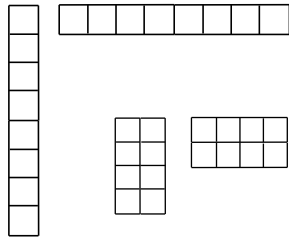
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A **composite number** has more than two factors.

The number 1 is a special number because it is neither prime nor composite. It has only 1 factor, 1.

Make arrays to find the factors. Write *prime* or *composite* for each number. **Check students' arrays.**

1. 8



**1, 2, 4, 8; composite**

2. 23



**1, 23; prime**

3. 35

**1, 5, 7, 35; composite**

4. 9

**1, 3, 9; composite**

5. 24

**1, 2, 3, 4, 6, 8, 12, 24; composite**

6. 11

**1, 11; prime**

## Prime and Composite Numbers

Make arrays to find the factors. Write *prime* or *composite* for each number.

1. 19 \_\_\_\_\_ 2. 32 \_\_\_\_\_ 3. 81 \_\_\_\_\_ 4. 36 \_\_\_\_\_  
 \_\_\_\_\_

5. 27 \_\_\_\_\_ 6. 56 \_\_\_\_\_ 7. 29 \_\_\_\_\_ 8. 18 \_\_\_\_\_  
 \_\_\_\_\_

Write *prime* or *composite* for each number.

9. 42 \_\_\_\_\_ 10. 64 \_\_\_\_\_ 11. 100 \_\_\_\_\_ 12. 72 \_\_\_\_\_

13. 22 \_\_\_\_\_ 14. 15 \_\_\_\_\_ 15. 91 \_\_\_\_\_ 16. 47 \_\_\_\_\_

Frances has to stack cans on a shelf. Each stack must have an equal number of cans. How many ways can she stack the cans on the shelf? List the ways.

17. 

<b>12 CANS</b>
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18. 

<b>24 CANS</b>
----------------

19. 

<b>18 CANS</b>
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### Mixed Review

20. Train A traveled the 29 miles between Dell City and Mesabi 18 times. Train B traveled the 21 miles between Mesabi and Dodge 24 times. Which train traveled the greater number of miles?

\_\_\_\_\_

21. Joanna left school at 3:30 P.M. She went to volleyball practice for 90 minutes. She stopped at her aunt's house for 75 minutes, and then spent 15 minutes walking home. What time did she get home?

\_\_\_\_\_

## Prime and Composite Numbers

Make arrays to find the factors. Write *prime* or *composite* for each number.

**Check students' arrays.**

- |  |  |  |   |
|--|--|--|---|
| 1. 19 <u>1, 19</u><br><u>prime</u>           | 2. 32 <u>1, 2, 4, 8,</u><br><u>16, 32</u><br><u>composite</u>        | 3. 81 <u>1, 3, 9, 27,</u><br><u>81</u><br><u>composite</u> | 4. 36 <u>1, 2, 3, 4, 6,</u><br><u>9, 12, 18, 36</u><br><u>composite</u> |
| 5. 27 <u>1, 3, 9, 27</u><br><u>composite</u> | 6. 56 <u>1, 2, 4, 7, 8,</u><br><u>14, 28, 56</u><br><u>composite</u> | 7. 29 <u>1, 29</u><br><u>prime</u>                         | 8. 18 <u>1, 2, 3, 6,</u><br><u>9, 18</u><br><u>composite</u>            |

Write *prime* or *composite* for each number.

- |                            |                            |                             |                            |
|----------------------------|----------------------------|-----------------------------|----------------------------|
| 9. 42<br><u>composite</u>  | 10. 64<br><u>composite</u> | 11. 100<br><u>composite</u> | 12. 72<br><u>composite</u> |
| 13. 22<br><u>composite</u> | 14. 15<br><u>composite</u> | 15. 91<br><u>composite</u>  | 16. 47<br><u>prime</u>     |

Frances has to stack cans on a shelf. Each stack must have an equal number of cans. How many ways can she stack the cans on the shelf? List the ways.

- |   |  |   |                |   |                |
|---|--|---|----------------|---|----------------|
| 17. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td><b>12 CANS</b></td></tr></table> | <b>12 CANS</b>   | 18. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td><b>24 CANS</b></td></tr></table> | <b>24 CANS</b> | 19. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td><b>18 CANS</b></td></tr></table> | <b>18 CANS</b> |
| <b>12 CANS</b>  |  |   |                |   |                |
| <b>24 CANS</b>  |  |   |                |   |                |
| <b>18 CANS</b>  |  |   |                |   |                |
| <u>6 ways: 1 stack of 12, 2 stacks of 6, 3 stacks of 4, 4 stacks of 3, 6 stacks of 2, 12 stacks of 1</u>              | <u>8 ways: 1 stack of 24, 2 stacks of 12, 3 stacks of 8, 4 stacks of 6, 6 stacks of 4, 8 stacks of 3, 12 stacks of 2, 24 stacks of 1</u> | <u>6 ways: 1 stack of 18, 2 stacks of 9, 3 stacks of 6, 6 stacks of 3, 9 stacks of 2, 18 stacks of 1</u>              |                |   |                |

### Mixed Review

- |  |   |
|--|---|
| 20. Train A traveled the 29 miles between Dell City and Mesabi 18 times. Train B traveled the 21 miles between Mesabi and Dodge 24 times. Which train traveled the greater number of miles?<br><br><u>Train A, 522 miles</u> | 21. Joanna left school at 3:30 P.M. She went to volleyball practice for 90 minutes. She stopped at her aunt's house for 75 minutes, and then spent 15 minutes walking home. What time did she get home?<br><br><u>6:30 P.M.</u> |
|--|---|