

# Area of Rectangles

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 24

## Q Quick Review

The **area** of a shape is the amount of flat space it covers, measured in **square units** (like square feet or square meters). For a rectangle, you find the area by multiplying the **length** times the **width**:  $\text{area} = \text{length} \times \text{width}$ . Think of it as counting the rows and columns of unit squares that fill the rectangle. For example, a rug 5 feet long and 3 feet wide has an area of  $5 \times 3 = 15$  square feet. **Always use square units** in your answer, because area covers a surface, not just a line.

◇ **Example:** A rectangle has a length of 7 meters and a width of 4 meters. What is its area?

⇒ Area means how much flat space the rectangle covers, and for a rectangle we multiply length by width. The length is 7 m and the width is 4 m, so  $7 \times 4 = 28$ . Picture 4 rows of 7 unit squares — that is 28 little squares in all. Because area covers a surface, the unit is square meters.

**Answer:** 28 square meters

## PRACTICE

Find the area of each rectangle. Use square units.

- |                        |       |                         |       |
|------------------------|-------|-------------------------|-------|
| 1. Length 3, width 4   | _____ | 11. Length 9, width 9   | _____ |
| 2. Length 5, width 6   | _____ | 12. Length 13, width 5  | _____ |
| 3. Length 7, width 8   | _____ | 13. Length 20, width 4  | _____ |
| 4. Length 9, width 2   | _____ | 14. Length 14, width 3  | _____ |
| 5. Length 10, width 5  | _____ | 15. Length 7, width 7   | _____ |
| 6. Length 6, width 6   | _____ | 16. Length 16, width 5  | _____ |
| 7. Length 12, width 3  | _____ | 17. Length 12, width 12 | _____ |
| 8. Length 8, width 7   | _____ | 18. Length 18, width 3  | _____ |
| 9. Length 11, width 4  | _____ | 19. Length 25, width 4  | _____ |
| 10. Length 15, width 2 | _____ | 20. Length 15, width 6  | _____ |

## ◆ Word Problems

21. A bedroom rug is 8 feet long and 5 feet wide. What is the area of the rug? \_\_\_\_\_
22. A garden is 12 meters long and 4 meters wide. How many square meters of space does the garden cover? \_\_\_\_\_
23. A square photo is 9 inches on each side. What is the area of the photo? \_\_\_\_\_
24. A classroom whiteboard is 6 feet long and 4 feet wide. What is its area? \_\_\_\_\_



## Answer Keys

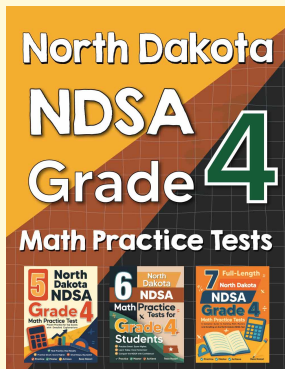
- |  |   |
|--|---|
| <p>1. 12 sq units</p> <p>2. 30 sq units</p> <p>3. 56 sq units</p> <p>4. 18 sq units</p> <p>5. 50 sq units</p> <p>6. 36 sq units</p> <p>7. 36 sq units</p> <p>8. 56 sq units</p> <p>9. 44 sq units</p> <p>10. 30 sq units</p> <p>11. 81 sq units</p> <p>12. 65 sq units</p> | <p>13. 80 sq units</p> <p>14. 42 sq units</p> <p>15. 49 sq units</p> <p>16. 80 sq units</p> <p>17. 144 sq units</p> <p>18. 54 sq units</p> <p>19. 100 sq units</p> <p>20. 90 sq units</p> <p>21. 40 square feet</p> <p>22. 48 square meters</p> <p>23. 81 square inches</p> <p>24. 24 square feet</p> |
|--|---|

### Step-by-Step Explanations

- |   |  |
|---|--|
| <p>1. Multiply length times width: <math>3 \times 4 = 12</math> square units.</p> <p>2. Multiply length times width: <math>5 \times 6 = 30</math> square units.</p> <p>3. Multiply length times width: <math>7 \times 8 = 56</math> square units.</p> <p>4. Multiply length times width: <math>9 \times 2 = 18</math> square units.</p> <p>5. Multiply length times width: <math>10 \times 5 = 50</math> square units.</p> <p>6. This is a square: <math>6 \times 6 = 36</math> square units.</p> <p>7. Multiply length times width: <math>12 \times 3 = 36</math> square units.</p> <p>8. Multiply length times width: <math>8 \times 7 = 56</math> square units.</p> <p>9. Multiply length times width: <math>11 \times 4 = 44</math> square units.</p> <p>10. Multiply length times width: <math>15 \times 2 = 30</math> square units.</p> <p>11. This is a square: <math>9 \times 9 = 81</math> square units.</p> <p>12. Multiply length times width: <math>13 \times 5 = 65</math> square units.</p> <p>13. Multiply length times width: <math>20 \times 4 = 80</math> square units.</p> <p>14. Multiply length times width: <math>14 \times 3 = 42</math> square units.</p> | <p>15. This is a square: <math>7 \times 7 = 49</math> square units.</p> <p>16. Multiply length times width: <math>16 \times 5 = 80</math> square units.</p> <p>17. This is a square: <math>12 \times 12 = 144</math> square units.</p> <p>18. Multiply length times width: <math>18 \times 3 = 54</math> square units.</p> <p>19. Multiply length times width: <math>25 \times 4 = 100</math> square units.</p> <p>20. Multiply length times width: <math>15 \times 6 = 90</math> square units.</p> <p>21. For a rectangle, area is length times width: <math>8 \times 5 = 40</math>. The rug covers 40 square feet.</p> <p>22. Multiply length times width: <math>12 \times 4 = 48</math>. The garden covers 48 square meters.</p> <p>23. A square's length and width are equal, so <math>9 \times 9 = 81</math>. The photo's area is 81 square inches.</p> <p>24. Multiply length times width: <math>6 \times 4 = 24</math>. The whiteboard has an area of 24 square feet.</p> |
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