

REVIEW: Multiplying Mixed Numbers

Name _____

Key Concept and Vocabulary

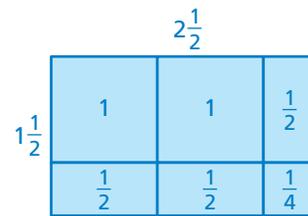
$$2\frac{1}{2} \times 1\frac{1}{2} = \frac{5}{2} \times \frac{3}{2} = \frac{15}{4}$$

Rewrite as improper fractions.

Multiply.



Visual Model



$$\text{Area} = 2\frac{1}{2} \times 1\frac{1}{2} = \frac{15}{4} = 3\frac{3}{4}$$

Skill Examples

1. $3\frac{1}{2} \times 2\frac{1}{3} = \frac{7}{2} \times \frac{7}{3} = \frac{49}{6} = 8\frac{1}{6}$

2. $1\frac{3}{4} \cdot 4\frac{1}{2} = \frac{7}{4} \cdot \frac{9}{2} = \frac{63}{8} = 7\frac{7}{8}$

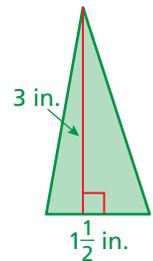
3. $2\frac{2}{5} \times 1\frac{2}{3} = \frac{12}{5} \times \frac{5}{3} = \frac{60}{15} = 4$

4. $\left(1\frac{1}{2}\right)\left(1\frac{1}{2}\right) = \left(\frac{3}{2}\right)\left(\frac{3}{2}\right) = \frac{9}{4} = 2\frac{1}{4}$

Application Example

5. Find the area of the triangle.

$$\begin{aligned} \text{Area} &= \frac{1}{2} \cdot 1\frac{1}{2} \cdot 3 \\ &= \frac{1}{2} \cdot \frac{3}{2} \cdot \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4} \end{aligned}$$



∴ The area is $2\frac{1}{4}$ square inches.

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Check your answers at BigIdeasMath.com.

Find the product. Write your answer as a whole number or mixed number in simplified form.

6. $2\frac{1}{3} \times 1\frac{1}{3} =$ _____

7. $4\frac{2}{3} \times 1\frac{1}{2} =$ _____

8. $1\frac{1}{2} \times 3 =$ _____

9. $5\frac{1}{6} \times \frac{1}{3} =$ _____

10. $\frac{3}{4} \cdot 3\frac{1}{2} =$ _____

11. $5 \cdot 4\frac{1}{2} =$ _____

12. $2\frac{1}{7} \cdot \frac{7}{15} =$ _____

13. $1\frac{3}{5} \cdot \frac{3}{8} =$ _____

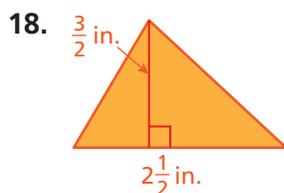
14. $\left(1\frac{1}{3}\right)^2 =$ _____

15. $\left(1\frac{1}{4}\right)^3 =$ _____

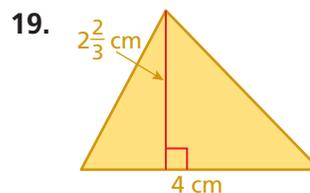
16. $\left(2\frac{1}{2}\right)\left(3\frac{1}{3}\right) =$ _____

17. $\left(3\frac{1}{2}\right)\left(\frac{1}{2}\right)^2 =$ _____

Find the area of the triangle.



Area = _____



Area = _____

20. **RECIPE** Rewrite the recipe so that each item is one-third of the full recipe.

$\frac{1}{2}$ cups flour
2 tsp baking powder
4 Tbsp butter
 $\frac{1}{2}$ tsp salt
 $\frac{3}{4}$ cup milk

_____ cups flour

_____ tsp salt

_____ tsp baking powder

_____ cup milk

_____ Tbsp butter