Multiplying and Dividing Fractions

To Multiply: *Multiply the numerators, then multiply the denominators.*
To Divide: *Keep the first fraction, change divide to multiply, and flip the second fraction (KCF). Then multiply as normal.*

Part A: Multiplication Practice

1. $\frac{2}{5} \times \frac{3}{7} =$

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2. $\frac{4}{9} \times \frac{3}{8} =$ (Hint: Cross-cancel!)

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3. $15 \times \frac{2}{5} =$

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

Multiplication Product Grid: Complete the grid. Simplify your answers.

×	$\frac{1}{2}$	$\frac{2}{3}$	5
$\frac{1}{4}$			
$\frac{3}{5}$			

Part B: Division Practice

5. $\frac{1}{3} \div \frac{1}{4} =$

6. $\frac{3}{8} \div \frac{2}{5} =$

7. $\frac{5}{12} \div \frac{10}{3} =$

8. $6 \div \frac{1}{3} =$

9. $\frac{3}{4} \div 2 =$

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

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

Part C: Puzzles and Problems

12. Fill in the blank: $\frac{1}{4} \times \_\_\_\_\_ = \frac{1}{10}$

13. Fill in the blank: $\frac{3}{5} \div \_\_\_\_\_ = \frac{3}{2}$

14. The area of a rectangle is $\frac{5}{8}$ m². If its width is $\frac{2}{5}$ m, what is its length?

15. Find the area of a square with a side length of $2\frac{1}{2}$ cm.

Part D: Contextual Problems

16. A recipe for a batch of 12 muffins requires $1\frac{3}{4}$ cups of flour. How much flour would you need if you only wanted to make half a batch (6 muffins)?

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17. How many $\frac{1}{4}$-cup servings can you get from a bag of sugar that contains $5\frac{1}{2}$ cups?

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18. In a school of 600 students, $\frac{2}{5}$ of the students play a sport. Of those who play a sport, $\frac{1}{4}$ play rugby. How many students play rugby?

19. A plank of wood is $4\frac{1}{2}$ metres long. How many pieces can be cut from it if each piece needs to be $\frac{3}{4}$ of a metre long?

20. Consider the sequence of fractions: $\frac{2}{5}, \frac{2}{15}, \frac{2}{45}, \ldots$

Find the next two terms in the sequence.

21. Consider the sequence of fractions with alternating signs: $\frac{8}{9}, -\frac{4}{9}, \frac{2}{9}, \ldots$

Find the next two terms in the sequence.