Fluently Multiply and Divide Within 100

Spot mistakes, reason, and work backward

Name _____ **Date** _____ **Score** _____ / 8

QUICK REVIEW

Use known facts efficiently and check division with multiplication.

$6 \times 7 = (5 \times 7) + (1 \times 7) = 35 + 7 = 42$; therefore $42 \div 7 = 6$. For nines, $9 \times 8 = 80 - 8 = 72$. All facts on this page have products at most 100.

Worked example

Use 3×6 to find 6×6 by doubling.

1. The known product is $3 \times 6 = 18$.

2. Doubling the number of groups doubles the total: $18 + 18 = 36$.

Answer: 36.

Practice Problems

Show your thinking.

1. Eli uses $7 \times 9 = 56$ to solve $56 \div 7$. Repair the multiplication fact.

2. Find the missing whole number: $8 \times \square = 48$. Check it.

3. Use 4×9 to find 8×9 by doubling.

4. Find 9×7 using 10×7.

5. Complete the fact table: the total is 56, and one factor is 7. Find the other factor and write two division facts.

Product	Factor	Factor
56	7	☐

6. Use $8 \times 5 = 40$ to find 8×7, then find $56 \div 8$. Show only the extra groups needed.

7. A calculation chain starts at 9, multiplies by 4, then divides by 6. Fill both missing results and check the final division.

8. Jae claims 6×8 and 7×7 have the same value. Compute both efficiently and find their difference.

Answer Key

1. $7 \times 8 = 56$, so the quotient is 8.
2. $\square = 6$.
3. 72.
4. 63.
5. Factor 8; $56 \div 7 = 8$, $56 \div 8 = 7$.
6. $8 \times 7 = 56$ and $56 \div 8 = 7$.
7. 36, then 6.
8. 48 and 49; difference 1.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Test Eli: $7 \times 9 = 63$, which is 7 too many.
2. Remove one group of 7: $63 - 7 = 56$; the factor is 8.

Problem 2

1. Use the related fact $48 \div 8 = 6$ to find the missing number 6.
2. Substitute it: $8 \times 6 = 48$ and $48 \div 8 = 6$ are both true.

Problem 3

1. The known product is $4 \times 9 = 36$.
2. Doubling the number of groups doubles the total: $36 + 36 = 72$.

Problem 4

1. Ten groups give $10 \times 7 = 70$.
2. Remove one group: $70 - 7 = 63$, so $9 \times 7 = 63$.

Problem 5

1. The missing factor solves $7 \times \square = 56$; $7 \times 8 = 56$.
2. Reverse the product both ways: $56 \div 7 = 8$ and $56 \div 8 = 7$.

Problem 6

1. Two extra groups of 8 add $2 \times 8 = 16$; $40 + 16 = 56$.
2. The completed fact $8 \times 7 = 56$ checks the quotient $56 \div 8 = 7$.

Problem 7

1. First, $9 \times 4 = 36$. This becomes the dividend for the next fact.
2. Then $36 \div 6 = 6$ because $6 \times 6 = 36$.

Problem 8

1. $6 \times 8 = 48$ and $7 \times 7 = 49$. The factors differ, so equality must be tested.
2. $49 - 48 = 1$; the products are close, not equal.

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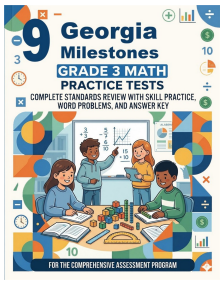

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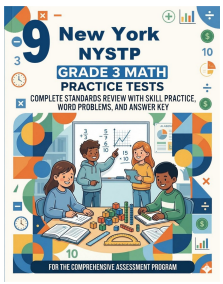

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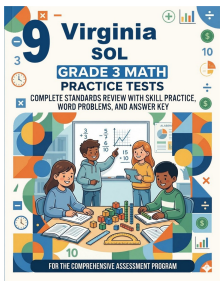

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