

4-1 Use Patterns to Multiply by 2: Operations & Algebraic Thinking: Multiply and divide within 100.

I can multiply by 2.

3.OA.C.7 Common Core: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

4-2 Use Patterns to Multiply by 5: Operations & Algebraic Thinking: Multiply and divide within 100.

I can multiply by 5.

3.OA.C.7 Common Core: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

4-3 Use Patterns to Multiply by 10: Operations & Algebraic Thinking: Multiply and divide within 100.

I can multiply by 10.

3.OA.C.7 Common Core: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

4-4 Patterns to Multiply by 1 and 0: Operations & Algebraic Thinking: Multiply and divide within 100. Solve problems involving the four operations, and identify and explain patterns in arithmetic.

I can multiply by 0 and 1.

I can understand patterns on a multiplication or addition table.

3.OA.C.7 Common Core: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

3.OA.D.9 Common Core: Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

4-5 Multiply Fluently by 0, 1, 2, 5, and 10: Operations & Algebraic Thinking: Multiply and divide within 100.

I can multiply by 0, 1, 2, 5 & 10.

3.OA.C.7 Common Core: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

4-6 Solve Problems Involving Equal Groups: Operations & Algebraic Thinking: Understand properties of multiplication and the relationship between multiplication and division.

I can solve problems involving equal groups using division and/or multiplication.

3.OA.A.3 Common Core: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹

3.OA.A.4 Common Core: Determine the unknown whole number in a multiplication or division equation relating three whole numbers.