

Multiplication Sample Pages

Conceptually, addition is the foundation for multiplication. Following are sample pages that demonstrate this progression.

Methods of Finding Sums with TouchPoints:

Sample Page 1: From Red Workbook (book 3 of 6), Page 3

Students relate TouchPoints (mathematical manipulatives within our common numbers) with a ten frame model to boost an understanding of our place value system.

Visual Models of Repeated Addition:

Sample Page 2: From Aqua Workbook (book 5 of 6), Page 1

Students relate additive properties, make sense of patterns, and reinforce multiplication as repeated addition – a developmentally appropriate way of learning multiplication connected to addition (as opposed to isolated as a new algorithm of multiplication) which boosts conceptual understanding and meaning of multiplication as a strategy for using larger numbers.

Multiplication with Math Modeling:

Sample Page 3: From Purple Workbook (book 6 of 6), Page 11

Students represent multiplication with representational multiplication arrays using TouchMath's C-R-A continuum, helping students move from Concrete (TouchPoints and manipulatives) to Representational (the numeral) to Abstract (solving problems using only mathematical reasoning).

Multiplication of Multi-Digit Numbers:

Sample Page 4: From Purple Workbook (book 6 of 6), Page 19

Students represent multiplication using abstract multiplication arrays to make sense of larger numbers, reinforcing place value, number sense, and multiplication relationships – boosting conceptual understanding of the meaning of multiplication.

The Multiplication Learning Progression series contains six student workbooks leveled by color:

Orange: TouchPoints & Number Sense (K: CC)

The foundation of the TouchMath Program and its multisensory approach to counting and cardinality.

Green: Number Concepts & Addition (K: CC, OA)

Developing an understanding of addition and strategies for addition through the use of modeling, visualizations, and multisensory approaches.

Red: Addition (K-1: OA, NBT)

Developing an understanding of how addition relates to mathematical models through the use of multiple meanings of representation and engagement.

Blue: Repeated Addition (1-3: OA, NBT)

Building fluency with addition and early multiplication through the use of representational math.

Aqua: Multiplication (2-3: OA, NBT)

Developing an understanding of the meanings of multiplication of whole numbers through a focus on representational problems involving equal-sized groups, arrays, and area models.

Purple: Expanding Multiplication (2-4: OA, NBT)

Comparing a variety of solution strategies to learn the relationship between multiplication and division.

The learning progression activities are carefully scaffolded. They may be used as a supplement to core instruction with Special Education students in a resource room setting, in a mainstreamed classroom, in a range of inclusion classrooms, and with remedial math students who need to be allowed to back up to the foundations. Additionally, progress monitoring is included to follow student progress.

To learn more about Learning Progressions, or for more information on the Above+Beyond workbooks, visit www.touchmath.com/aboveandbeyond or call 1-855-929-0880.

Solve.


 $+$

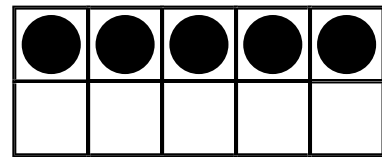
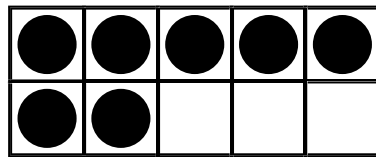
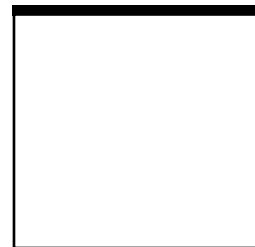
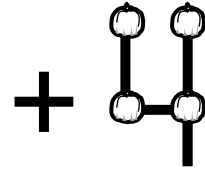
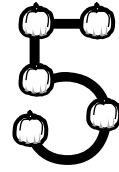
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There are 5 pumpkins on a vine.

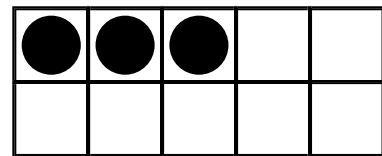
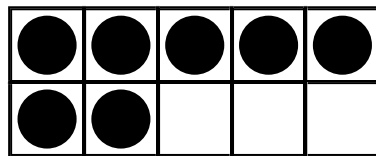
There are 4 pumpkins on another vine.

How many pumpkins are there **in all**?

pumpkins

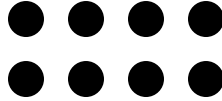


12 = +



10 = +

Fill in the blanks.

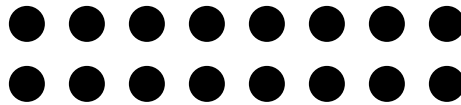


There are _____ **groups** of dots.

There are _____ dots in **each group**.

Write the addition sentence to find the **total** number of dots.

$$\square + \square = \underline{\hspace{2cm}}$$



There are _____ **groups** of dots.

There are _____ dots in **each group**.

Write the addition sentence to find the **total** number of dots.

$$\square + \square = \underline{\hspace{2cm}}$$

Fill in the blanks.



There are _____ groups of _____.

There are _____ dots in all.

Write the addition sentence.

$$\square + \square + \square + \square = \underline{\hspace{2cm}}$$

Write the two multiplication sentences.

Use the area model to multiply.

$$94 \times 21 = \underline{\hspace{2cm}}$$

90

+

4

20			
+			
1			

$$62 \times 39 = \underline{\hspace{2cm}}$$

30

+

9

60			
+			
2			