

Preliminary Planning Sheet Grade 3 – Pom-poms

Domain(s)

Operations and Algebraic Thinking

Standard(s)

3.OA.A.1

Mathematical Practices

MP.1 MP.3 MP.4 MP.5 MP.6 MP.7

Major Underlying Mathematical Concepts

- Creating multiplication situations to match an expression
- Finding the product when both factors are known
- Commutative Property
- Number sense to 28

Problem Solving Strategies

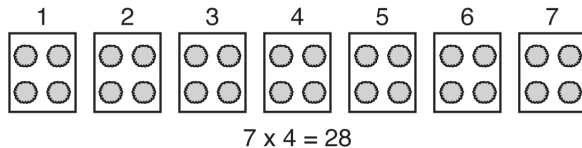
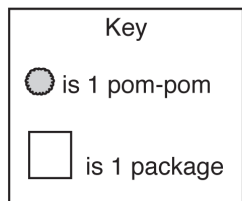
- Model (manipulatives)
- Diagram/Key
- Table
- Tally chart
- Arrays
- Number line

Formal Mathematical Language and Symbolic Notation

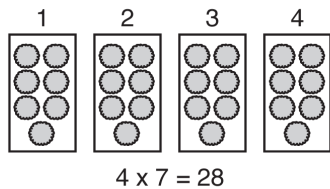
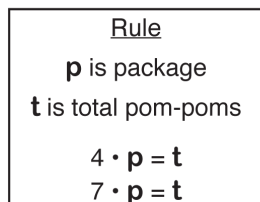
- Model
- Diagram/Key
- Table
- Tally chart
- Number line
- Array
- Product
- Factor
- Set
- Total/Sum
- Dozen
- Greater than (>)/Less than (<)
- Equivalent/Equal to
- Odd/Even
- Equation
- Expression
- Row/Column
- Rule
- Variable

Possible Solution(s)

Amy is correct because $4 \times 7 = 7 \times 4$.



Package	Pom-poms
1	4
2	8
3	12
4	16
5	20
6	24
7	28

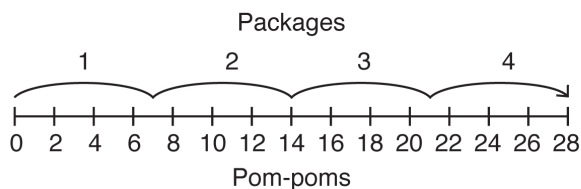
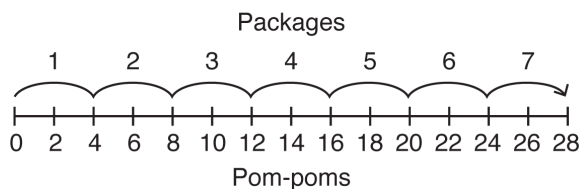


$28 = 28$

Package	Pom-poms
1	
2	
3	
4	
5	
6	
7	

Package	Pom-poms
1	
2	
3	
4	

Package	1	2	3	4
Pom-poms	7	14	21	28



Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Patterns in table: Packages +1, Pom-poms +7 or +4.
- The +4 pom-pom pattern is always even.
- The +7 pom-pom pattern is odd, even, odd, even ...
- When you add equal groups on a number line, you jump over the same number of spaces each time moving to the right, away from 0.
- The number of equal sets of 4 is extended beyond 7.
- The number of equal sets of 7 is extended beyond 4.
- Solve more than one way to verify the answer.
- Relate to a similar task and state a math link.
- 4 is an even number. 7 is an odd number. An even number times an odd number is an even number.