Multiplication and Division Problem Situations

ASYMMETRICAL (NONMATCHING) FACTORS			
	Product Unknown	**Multiplier (Number of Groups) Unknown**	**Measure (Group Size) Unknown**	
Equal Groups				
	Resulting Value Unknown	**Scale Factor (Times as Many) Unknown**	**Original Value Unknown**	
Multiplicative Comparison				

SYMMETRICAL (MATCHING) FACTORS			
	Product Unknown	**One Dimension Unknown**	**Both Dimensions Unknown**
Area/Array			
	Sample Space (Total Outcomes) Unknown	**One Factor Unknown**	**Both Factors Unknown**
Combinations (Fundamental Counting Principle)			

Note: In the upper elementary grades, students begin the long journey of learning to think multiplicatively and proportionally. Part of this process involves moving away from counting and repeated addition to represent ideas that are better expressed with multiplication, but the primary years are still focused mostly on counting and adding. Some standards leverage that strength to introduce early ideas of multiplication: Counting squares in an array is one of them, and skip counting is another. We have included multiplication and division equations for our adult readers. K–2 students are not typically expected to represent these operations in equation form.

Table References

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