

Preliminary Planning Sheet

Grade 2 – Cars and Trucks

Domain(s)

Operations and Algebraic Thinking

Standard(s)

2.OA.C.3

Mathematical Practices

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

Major Underlying Mathematical Concepts

- Odd/Even
- Number sense to 12
- Comparison
- 3 cars to 1 shelf
- 4 trucks to 1 shelf
- Addition/Counting on

Problem Solving Strategies

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

Formal Mathematical Language and Symbolic Notation

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|---|--|
| <ul style="list-style-type: none"> • Model • Diagram/Key • Table • Odd/Even • Total/Sum • Equation • Tally chart • Tally • Number line | <ul style="list-style-type: none"> • Equal share • Dozen • Pair • Per • More than (>)/Greater than (>)/Less than (<) • Equivalent/Equal to • Amount • Pattern • First, second, third ... |
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Possible Solution(s)

Yes, Kurt has the same total number of cars and trucks.

Key
c is a Car
t is a Truck

Shelves		Cars
1	<u>c c c</u>	$3 + 3 + 3 + 3 = 12$
2	<u>t t t t</u>	
3	<u>c c c</u>	Trucks
4	<u>t t t t</u>	$4 + 4 + 4 = 12$
5	<u>c c c</u>	
6	<u>t t t t</u>	
7	<u>c c c</u>	

Shelf	Cars	Total Cars
1	3	3
3	3	6
5	3	9
7	3	12

Shelf	Trucks	Total Trucks
2	4	4
4	4	8
6	4	12

Possible Connections

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

- Kurt has a total of 24 vehicles.
- Kurt has an equal amount of cars and trucks.
- The pattern is 3c, 4t, 3c, 4t.
- The pattern needs shelf 8 to complete the pattern. Then it would be 4 more trucks than cars.
- $\text{Odd} + \text{Odd} + \text{Odd} + \text{Odd} = \text{Even}$
- $\text{Even} + \text{Even} + \text{Even} = \text{Even}$
- 12 cars or trucks is a dozen.
- 4 trucks is 2 pairs.
- There is an even number of cars.
- There is an even number of trucks.
- Solve more than one way to verify the answer.
- Relate to a similar task and state a math link.