# Step 9: How Many Ways?

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## Introduction

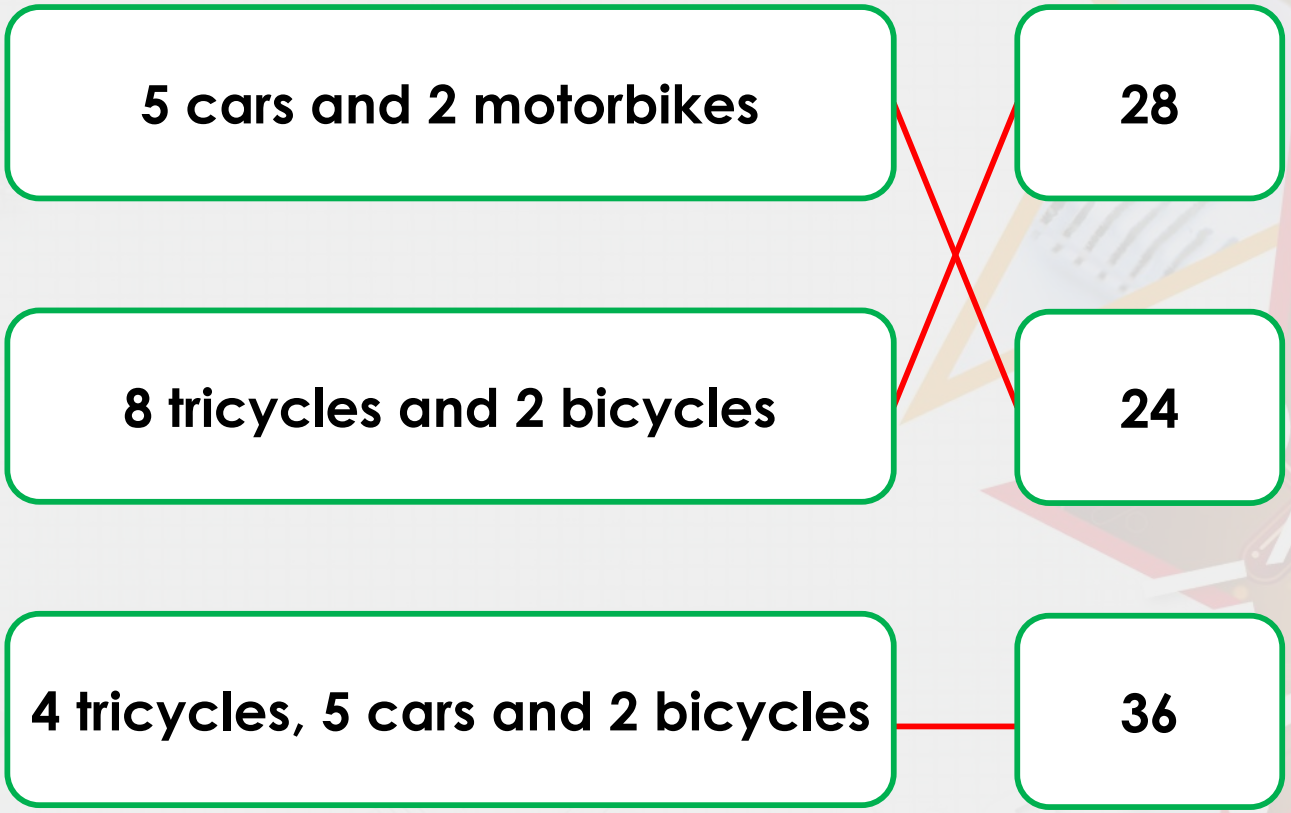
**Match the numbers to the total number of wheels.**

| | |
|---|---|
| 5 cars and 2 motorbikes | 28 |
| 8 tricycles and 2 bicycles | 24 |
| 4 tricycles, 5 cars and 2 bicycles | 36 |

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## Introduction

**Match the numbers to the total number of wheels.**




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# Varied Fluency 1

**Lyla is potting flowers. Complete the table to show how many possible flower and pot combinations she can make.**








| Pot | Flower |
|---|---|
| Hourglass | Tulip |
| Hourglass | Rose |
| Tea cup | Tulip |
| Tea cup | |
| Stripy | |
| | |
| | |
| | |

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## Varied Fluency 1

**Lyla is potting flowers. Complete the table to show how many possible flower and pot combinations she can make.**







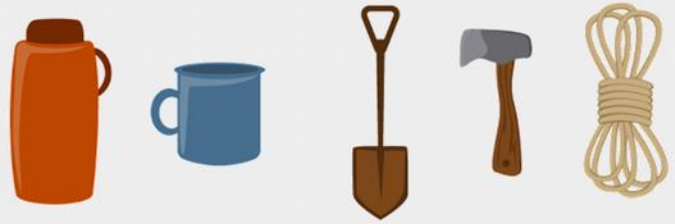

| Pot | Flower |
|---|---|
| Hourglass | Tulip |
| Hourglass | Rose |
| Tea cup | Tulip |
| Tea cup | Rose |
| Stripy | Tulip |
| Stripy | Rose |
| Spotty | Tulip |
| Spotty | Rose |

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## Varied Fluency 2

**Which representation shows 3 x 3 combinations?**

**A.**



**B.**



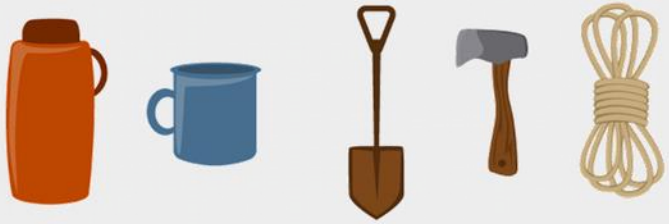
**C.**



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## Varied Fluency 2

**Which representation shows 3 x 3 combinations?**

A. 

B. 

C. 

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## Varied Fluency 3

**Find the calculation that shows the number of ways the tents and sleeping bags could be combined.**




A. 3 + 2 = ☐

B. 3 x 2 = ☐

C. 3 x 3 = ☐

**List all the possible combinations**

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## Varied Fluency 3

**Find the calculation that shows the number of ways the tents and sleeping bags could be combined.**




A. $3 + 2 = \square$

B. $3 \times 2 = 6$

C. $3 \times 3 = \square$

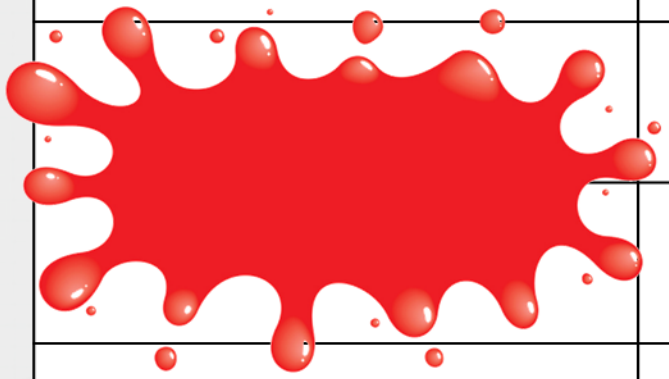
**List all the possible combinations**

1A, 1B, 1C, 2A, 2B, 2C

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# Problem Solving 1

## What are the missing combinations?

| Ride | Number of people per carriage |
| --- | --- |
| Ferris Wheel |  |
|  | 2 |
| | 1 |
| Carousel |  |

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## Problem Solving 1

**What are the missing combinations?**

| Ride | Number of people per carriage |
|---|---|
| Ferris Wheel | 1 |
| Ferris Wheel | 2 |
| Carousel | 1 |
| Carousel | 2 |

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## Reasoning 1

David says he can have 10 different combinations from the list.

| Ice cream flavour | Topping |
|---|---|
| Vanilla | Sauce |
| Chocolate | Sprinkles |
| Strawberry | Flake |
| Mint | Fudge pieces |
| Raspberry | Nuts |

Is he correct? Prove it.

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David is incorrect because…

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## Reasoning 1

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Is he correct? Prove it.

David is incorrect because there are 5 in each group. 5 x 5 = 25 not 10, so there are 25 different combinations.

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## Problem Solving 2

**Chrissy found 18 combinations of monkeys and bears at the zoo.**





**How many different species of each creature could there be?**

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## Problem Solving 2

**Chrissy found 18 combinations of monkeys and bears at the zoo.**





**How many different species of each creature could there be?**

**Various answers, for example: 6 monkeys and 3 bears (6 x 3 = 18)**

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