
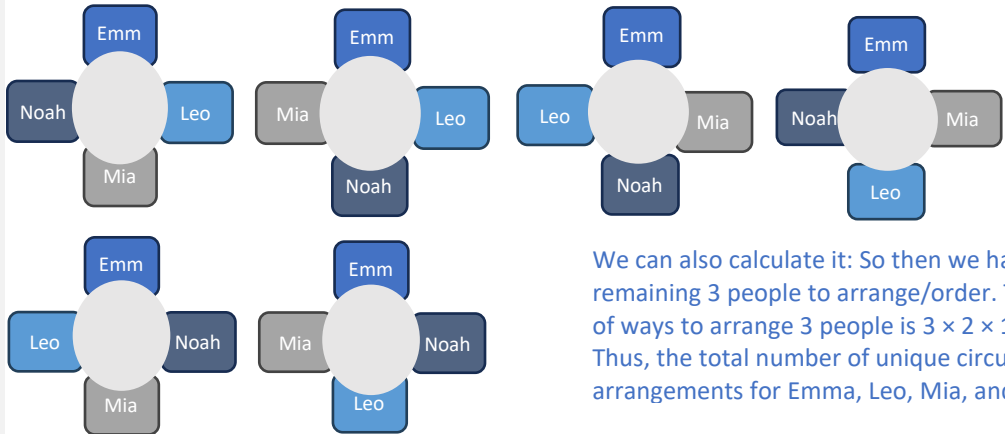





Spring is Here!

Kinder & First Grade: solve at least 3 problems.
Second & Third Grade: solve at least 7 problems.
Fourth Grade and above: solve at least 12 problems.

		<i>Answer</i>
1.	Five flower bouquets are taken from the group of bouquets (shown at the right). How many bouquets are left?	<i>3 [bouquets]</i>
2.	There are 12 houses on your street. As spring arrives, all but one of the houses have gardens full of flowers. How many houses have gardens filled with flowers? $12 - 1 = 11$ houses	<i>11 [houses]</i>
3.	If + = 5 and + = 8, what is the value of + ? Each is 4 and each = 1. Therefore, + = 1 + 1 = 2	<i>2</i>
4.	Lily is planting a flower garden. She plants 3 rows of tulips, with 5 tulips in each row. She also plants 2 rows of daisies, with 3 daisies in each row. How many flowers does Lily plant in total? Number of tulips: $5+5+5 = 15$ Number of daisies: $3+3 = 6$ } Total: $15 + 6 = 21$	<i>21 [flowers]</i>
5.	From the first clue, we know that the number of flowers are more than 31. From the second clue, it has to be less than 35. So, the number we are looking for is between 31 and 35 and it is an odd number. It must be 33 .	<i>33 [flowers]</i>
6.	She planted 6×8 or 48 tulips. She needs: $60 - 48 = 12$ more tulips.	<i>12 [tulips]</i>
7.	Total number of people going on the trip: $31 + 5 = 36$ people. Three vans can hold 30 people, so one more van is needed to carry an additional 6 people. Total vans needed: 4 .	<i>4 [vans]</i>
8.	Since 1 pitcher can fill 10 cups, 3 pitchers can fill 30 cups. $30 \text{ cups} \times \$2 = \60 or $\\$60.00$	<i>$\\$60$ or $\\$60.00$</i>
9.	Each full cycle consists of $5 - 2$ or 3 feet. In 5 full cycles or 10 moves, the butterfly cover 5×3 or 15 feet, and it is 5 feet away or one move (5 feet forward) from the goal. Thus, the total number of moves = $10 + 1 = 11$ moves.	<i>11 [moves]</i>
10.	Guess and check: <ul style="list-style-type: none"> 1 adult and 4 children: $(1 \times \\$9) + (4 \times \\$5) = \\$29$ 2 adults and 8 children: $(2 \times \\$9) + (8 \times \\$5) = \\$58$ 3 adults and 12 children: $(3 \times \\$9) + (12 \times \\$5) = \\$87 \rightarrow$ total child tickets = 12 	<i>12 [child tickets]</i>
11.	Mon: 2 cm. Growth on Tue: $2 \times 1.5 = 3$ cm. It becomes $2 + 3 = 5$ cm tall. Wed: $3 \times 1.5 = 4.5$ cm, and it becomes $5 + 4.5 = 9.5$ cm tall Thu: $4.5 \times 1.5 = 6.75$. It becomes $9.5 + 6.75 = 16.25$ cm tall. So, it reached 10 cm on Thursday .	<i>Thursday</i>

<p>12. First, we can list the jumping pattern each grasshopper creates. The first grasshopper: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, ... The second grasshopper: 5, 10, 15, 20, 25, 30, 35, 40, 45, ... The third grasshopper: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, ... Since we are looking for a number that is a multiple of 3, 5, and 7, the first number that satisfies this condition is 105. In other words, we are searching for the lowest common multiple of 3, 5, and 7.</p>	<p>105 [feet]</p>
<p>13. We can draw the rectangular garden where its length is 4 meters longer than twice its width:</p>  <p>Width: $(80 - 4 - 4) \div 6 = 72 \div 6 = 12$ meters. Area: $12 \times (12 + 12 + 4) = 336 \text{ m}^2$</p>	<p>336 [m²]</p>
<p>14. In a circular arrangements, we can fix one person's position (to avoid double counting equivalent rotations). We can draw carefully the different arrangements:</p>  <p>We can also calculate it: So then we have the remaining 3 people to arrange/order. The number of ways to arrange 3 people is $3 \times 2 \times 1 = 6$. Thus, the total number of unique circular arrangements for Emma, Leo, Mia, and Noah is 6.</p>	<p>6 [arrangements]</p>
<p>15. Since $24 = 2(\text{length} + \text{width})$, we know that $\text{length} + \text{width} = 12$. List of possible dimensions where $L + W = 12$ and L must be at least 3 feet or more than the W. 11 feet by 1 foot, 10 feet by 2 feet, 9 feet by 3 feet, 8 feet by 4 feet → there are 4 dimensions. 7 feet by 5 feet, 6 feet by 6 feet → not valid since the length is not 3 feet or more than the width.</p>	<p>4</p>
<p>16. Roundtrip distance: $154 + 154 = 308$ miles. Their car needs $308 \div 28 = 11$ gallons for the trip. The cost for gas: $\\$3.95 \times 11$ gallons = \$43.45</p>	<p>\$43.45</p>
<p>17. Volume of the bin: $V = l \times w \times h = 4 \times 3 \times 1.5 = 18 \text{ ft}^3$ Each hour, the rainwater adds a depth of 2.5 inches or $5/24$ feet over the area of the bin (12 square feet). Volume of water collected per hour: $12 \times 5/24 = 60/24$ or 2.5 ft^3 per hour. So, it will take $18 \div 2.5 = 7.2$ hours or 7 hours and 12 minutes to fill the bin completely. Another way to solve it is by using only the height. $1.5\text{ft} = 18\text{in}$. So, $18/2.5=7.2$ hours = 7 hours and 12 minutes.</p>	<p>7 hours and 12 minutes</p>
<p>18. If each person picked the same number of tulips, that means each person picked $99/3 = 33$ tulips at all three fields. At the third field one person picked $18/3 = 6$ tulips. It means $33 - 6 = 27$ tulips were picked by one person at the first and second field.</p>  <p>1 unit: $27/3 = 9$ tulips Each person picked 9 tulips from the first field.</p>	<p>9 [tulips]</p>

Solution is available on March 21, 2025

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