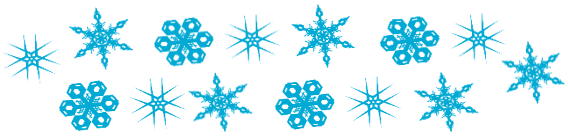
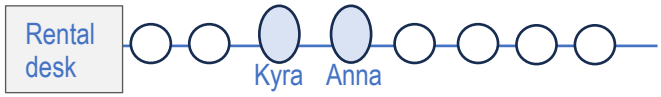
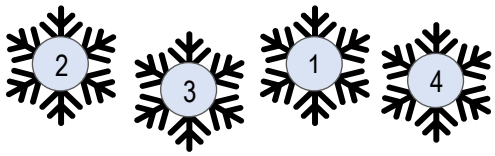
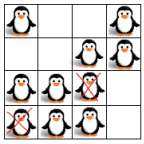
Winter Fun Activities

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

		Answer
1.	How many unique types of snowflakes are there? 	*3*
2.	If ❄ + ❄ = 6 and ☃ + ☃ + ☃ = 6, what is the value of ☃ + ❄ = ? Each snowflake is 3 and each snowman is 2. Therefore, 2+3 = **5**.	*5*
3.	Kyra and Anna are waiting in line to rent ice skates at the Bellevue Ice-Skating Arena. Kyra is standing directly in front of Anna. Kyra turns to Anna and says, "There are 5 kids behind me in the line." Anna replies, "There are 3 kids ahead of me in the line." How many kids are in the line, including Kyra and Anna? Draw it out.  **8 kids** standing in the line.	*8 [kids]*
4.	Kyle is keeping track of the amount of snowfall at the ski resort this month. So far it has snowed three times. The first snowfall was only 3 inches. Last week there was a snowstorm that dumped 13 inches. The most recent snowfall was 5 inches. How many inches of snowfall has the resort seen so far this month? 3 + 13 + 5 = **21 inches**	*21 [inches]*
5.	 If you pick two random snowflakes, how many different possible sums could you get? 2+3 = 5, 2+1 = 3, 2+4 = 6 3+2 = 5, 3+1 = 4, 3+4 = 7 1+4 = 5, 1+3 = 4, 1+2 = 3 After removing duplicate sums, you get **5** different answers (3, 4, 5, 6, and 7)	*5 [answers or sums]*
6.		*2 [stickers]*
7.	Six igloos can be traded for 12 snowmen, which can be traded for 36 snowflakes. Every 2 snowflakes can be traded for 1 sled, Anishka will have 36 ÷ 2 = **18 sleds**.	*18 [sleds]*
8.	Total cups: 20 x 2 = 40 cups. Number of batches: 40 ÷ =5 cups = **8 batches.**	*8 [batches]*

9.	Amber: 3 times. Diana: 3 + 2 = 5 times. Lyron: 2 x 5 = 10. Total: 3 + 5 + 10 = 18 times.	*18 [times]*
10.	 The number of snowflakes she needs: 9 + 9 = 18 She made 5 already, so she needs 18 – 5 = **13 more.**	*13 [snowflakes]*
11.	Number of children: 89 x 2 = 178. Thus, total number of people: 89 + 178 = **267 people.** Or draw the model Children  Adults  1 unit = 89 people. In total 3 units, 89×3 = **267 people**	*267 [people]*
12.	The next time all digits are different, it will show 78290. 78290 – 78269 = **21 miles**	*21 [miles]*
13.	a. 120 feet ÷ 15 feet/string = **8 strings** b. 8 strings × $10.50 = **$84.00**	*a. 8 [strings]* *b. $84 or $84.00*
14.	If the sled cost $89.00, then 1 pair of glove cost: (124.00 - $89.00) ÷2 = $35 ÷2 = **$17.50**	*$17.50*
15.	½ ft = 6 inches. 1 ½ inches per hour means 3 inches every 2 hours. Double 3 inches to become 6 inches in 4 hours. Thus, 4 hours after 9 PM will be **1 AM.**	*1:00 AM or 1:00 a.m.*
16.	Let's pretend that all 25 places are igloos. 25 × 4 = 100 people, so we overcounted by 100-70 = 30 people. The difference between the igloo and snow cave is 2 people. 30 ÷ 2 = **15 snow caves**. *Double check:* 10 igloos × 4 = 40 people, 15 snow caves × 2 = 30 people. In total, we have 25 dwellings and 70 people.	*15 [snow caves]*
17.	From 12pm to 1 pm Billy will move 2.5 miles. So, the initial distance between the two friends was 2.5 miles. Jared is gaining half a mile every hour. 2.5 miles ÷ (3-2.5 mph) = 5 hours. In 5 hours, Jared will catch up with Billy. Jared will catch up with Billy 5 hours after 1 pm, which is at **6 p.m**.	*6:00 PM or 6:00 p.m.*
18.	The trail's distance is 7 miles. Each hour, Anthony and Nathaniel get 20 + 15 = 35 miles closer. 7 miles ÷ 35 mph = 1/5 hour = 12 minutes. At **11:12 a.m.,** Anthony and Nathaniel will pass each other.	*11:12 AM or 11:12 a.m.*

Solution is available on February 7, 2025
www.mathinaction.org

The student registration for 2025 Math Challenge Tournament® is now open.
Registration and locations information can be found at:
https://www.ellipsisacademy.com/2025-mct-students-registration.html.
For tournament format, levels/divisions, and sample problems, please visit 2025 Math Challenge Tournament.