

# Math Challenge #6

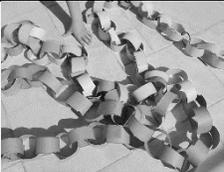


First Name: _____	Last Name: _____	Grade: _____
Teacher: _____	Parent's email: _____	

## Winter

It's a season full of joy, holidays and winter activities. Enjoy the challenge!

**Kinder & First Grade: solve at least 3 problems.**  
**Second & Third Grade: solve at least 6 problems.**  
**Fourth Grade and above: solve at least 12 problems.**

<i>Problems</i>		<i>Answer</i>
1.	One day, the temperature in December 2016 was 42 degrees Fahrenheit. it dropped 7 degrees Fahrenheit the next day. What was the new temperature?	
2.	 Janelle was making paperchain decorations for her school. Her pattern was: Blue, White, Green, Blue, White, Green, and so on. What would be the color of the twelfth piece?	
3.	An icicle was 3 inches long on Monday morning. It melted 1 inch during the day and grew 2 inches at night. On which day of the week in the morning time would the icicle be 7 inches long?	
4.	Sohil is lining up his toy cars by the Christmas tree. Out of 24 cars, half are firefighter's trucks, half of what is left are ice-cream vendor trucks, the rest are racing cars. How many racing cars are lined at the Christmas tree?	
5.	Snowflake Lane features a Nightly Parade every night from November 24 until December 24. How many days can one see this beautiful celebration? 	
6.	 To glue one gingerbread house, a person needs 1 lb. of sugar icing. Shrima is hosting a gingerbread house party for her 28 classmates. How much sugar (in lb.) does she need if each one will build their own gingerbread house?	
7.	Pacific Northwest Ballet presented Nutcracker in 1983. Anna's family attends this performance once each year. How many times did Anna see Nutcracker if she went to see it last week? 	
8.	<i>Redmond Lights</i> has 1 mile of luminaries, lights and performances. How long would it take for a person who is walking 20 yards a minute to travel one way? 1 mile = 1760 yds.	

9. 60 drummers of the *Snowflake Lane* stand **equally stationed along the two sides** of 1160 feet of Bellevue Way. What is the distance between a pair of drummers (in feet)?

10. Grandma Jane wants to buy The Marble Mania Whirler for her 3 grandchildren. If each Whirler costs \$29.99 and she will pay the cashier \$100 bill, what will be her change?

11. All the kids were lined up in pairs to Santa Claus and Elves Workshop House. Eliza noticed that there were 8 pairs of kids in front of her and 7 pairs behind her. How many children were in a line?

12. The year 2017 ends with 17, which is a prime number. How many more years ending on 2-digit prime will there be in this century?

13. Starting with the letter S on the top and only moving one letter at a time downward to the left or right, how many different paths from top to bottom spell SNOW?

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  S
   N N
  O O O
 W W W W
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14. Christmas Sale prices at the LEGO Outlet Store are 50% below original prices. On Saturdays an additional discount of 20% off the sale price is given. What is the Saturday price of a Lego technique set that has an original price of \$79?

15. Alex can shovel snow at the rate of 20 cubic yards for the first hour, 19 cubic yards for the second, 18 cubic yards for the third, etc. Notice that she always shovels one cubic yard less per hour than the previous hour. Her driveway is 4 yards wide, 10 yards long, and covered with 3 yards deep snow. Estimate to the nearest hour how long it will take her to shovel it clean?

16. A 65 inches tall snowman begins to melt when the sun is shining directly onto him. If the snowman loses 2 inches of height for every hour the sun shines on it, and the sun only shines 5.3 hours a day, how many days will it take to melt the snowman completely?

17. A group of kids are having snowball fight during the winter break. On average 5 kids use 15 snowballs every minute and 2 kids can make 6 snowballs every 15 seconds. If you have 20 kids on your team what is the minimum number of kids you need to have making snowballs, so that your team will never run out of ammunition?

18. Two friends are making a snowman. If they have 5 different hats, 3 different set of eyes, 2 different set of noses, 7 different colored scarves, how many different ways could they decorate the snowman?

