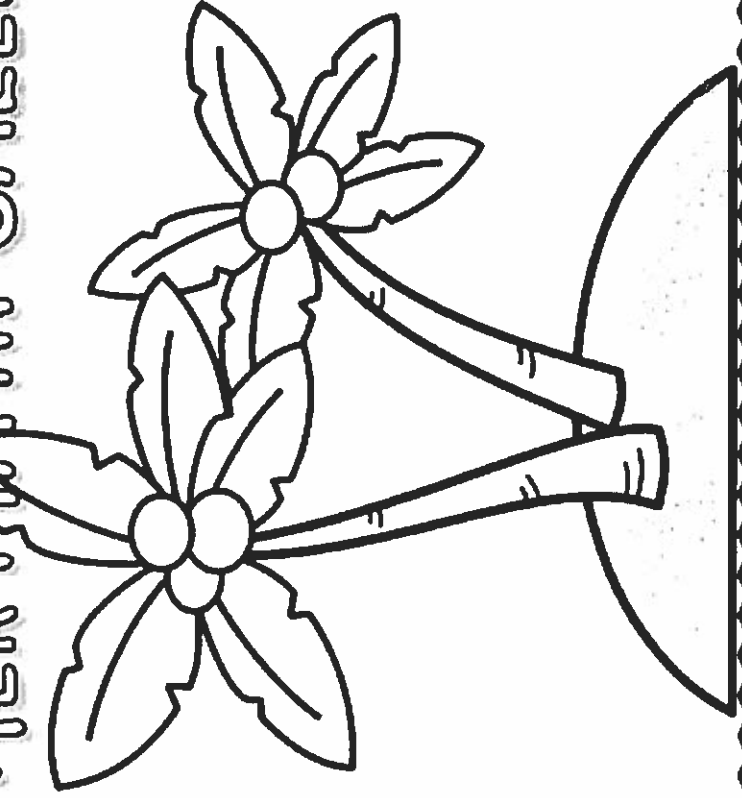


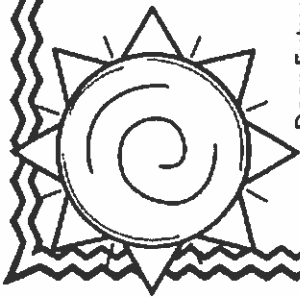
INCOMING 8<sup>TH</sup> GRADE

SUMMER MATH CALENDAR



Summer Math





# Summer Math Calendar

Dear Future 8<sup>th</sup> Grade Students and Parents,

This summer math calendar has been created to help you maintain all of your hard work that you have done this past year in Math and to prepare you for what is to come in 8<sup>th</sup> grade Math. To help you do this, we have put together this calendar with the math concepts that you have already learned so that your skills are sharp and ready to begin 8<sup>th</sup> grade math.

Each week you have been assigned five sets of problems to complete. You have options on which way you would like to complete them. You may choose when and how to complete them using the following options:

**OPTION A:** You may do the problems for each week all in one day.

**OPTION B:** You may spend five minutes each day completing one problem.

**OPTION C:** Create your own Option and schedule.

You may work on the calendar in whichever way best suits your style. All we ask is that you do not leave the calendar until the week or even the days before school begins. This calendar is meant for you to maintain your skills. You may use the advice of siblings, parents and most importantly your own brain to complete the calendar. You must show all of your work and it should be completed in pencil. There is also an evaluation form for you and your parents to complete. This will help us in ensuring that you get the most out of our Math Summer Packets.

All students who return their **fully completed** Summer Calendar and their evaluations to their math teacher within the first week of school will have their name entered into a drawing for a **\$20 GIFT CARD!**

Good Luck! We hope you have a fabulous summer! We can't wait to see you back in the Fall!

Sincerely,

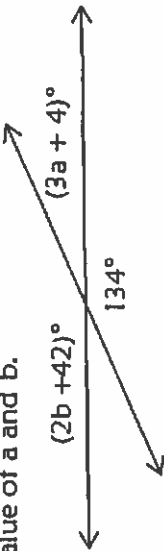
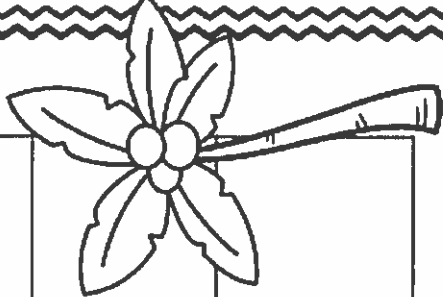
The Benjamin Stoddert Math Department



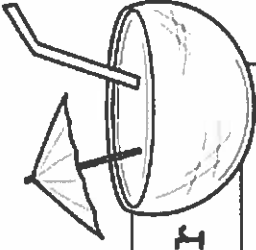
Summer Math



# Week One

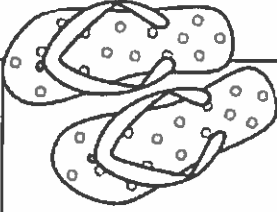
Problem	Work & Answer
<p>7.NS.1</p> <p>Give the sum or difference:</p> <p>a.) <math>8 - 15</math>      b.) <math>-8 - 15</math> c.) <math>-8 + 15</math>    d.) <math>-8 + -15</math></p>	
<p>7.G.5</p> <p>Find the value of a and b.</p> 	
<p>7.EE.1</p> <p>Simplify each expression by combining like terms.</p> <p>a.) <math>11x - 7 - 3x + 4</math> b.) <math>21a + (-18b) - 6a + 11b</math> c.) <math>-7w + 2w - 12w - w</math></p>	
<p>7.G.6</p> <p>Find the width of a rectangular prism if the volume is <math>546\text{cm}^3</math>, the height is 7 cm and the length is 13 cm.</p>	
<p>7.RP.1</p> <p>It takes Billy fifteen minutes to complete <math>\frac{1}{8}</math> of a recipe. At this rate how long will it take for him to complete the recipe?</p>	

# Week Two

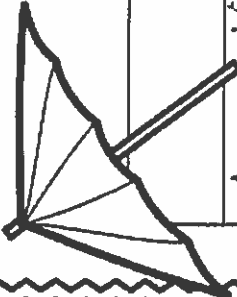



Problem	Work & Answer										
<p>Solve for each variable.</p> <p>a.) <math>\frac{w}{-12} = 3</math>      b.) <math>\frac{3}{4}x = -24</math>      c.) <math>36 = y + 14</math></p> <p>7.EE.4</p>											
<p>Simplify each expression:</p> <p>a.) <math>-72 \div 8 + (-6) - 2</math>            b.) <math>-4 + (-32) \div (-4 \cdot 4)</math></p> <p>7.NS.5</p>											
<p>A convenience store company would like to know what flavor slushy children ages 8 through 11 prefer. The company decides to ask students in grades 3 through 5<sup>th</sup> at Lincoln Elementary school. Identify which group is the population and which is the sample.</p> <p>7.SP.1</p>	<p>_____ Students in grades 3-5 at Lincoln school</p> <p>_____ Children ages 8 through 11</p>										
<p>Nancy sold a house for \$225,900 and earned 4% commission. How much did Nancy earn for the sale of this house?</p> <p>7.EE.3</p>											
<p>Complete the table that shows a proportional relationship between the amount of small boxes of popcorn and candy sold at a movie theater.</p> <p>7.RP.2</p>	<table border="1"> <thead> <tr> <th data-bbox="1193 606 1242 846">Candy (small boxes)</th> <th data-bbox="1193 323 1242 606">Popcorn (small boxes)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1242 606 1282 846"></td> <td data-bbox="1242 323 1282 606">24</td> </tr> <tr> <td data-bbox="1282 606 1323 846">12</td> <td data-bbox="1282 323 1323 606">96</td> </tr> <tr> <td data-bbox="1323 606 1364 846">48</td> <td data-bbox="1323 323 1364 606"></td> </tr> <tr> <td data-bbox="1364 606 1404 846"></td> <td data-bbox="1364 323 1404 606">528</td> </tr> </tbody> </table>	Candy (small boxes)	Popcorn (small boxes)		24	12	96	48			528
Candy (small boxes)	Popcorn (small boxes)										
	24										
12	96										
48											
	528										

# Week Three

Problem	Work & Answer
<p>Trail mix made for three people uses 3 cups of almonds, 1 cup of raisins and <math>\frac{1}{3}</math> cup of chocolate chips. If the same ratio of ingredients is used for twelve people, how much of each ingredient is needed?</p> <p>7.RP.3</p>	
<p>Expand each expression using the distributive property.</p> <p>a.) <math>2(5x - 3)</math>            b.) <math>-4(2a + 6b - 7)</math>            c.) <math>8(-3m + 2n) + 12</math></p> <p>7.EE.1</p>	
<p>Find each product.</p> <p>a.) <math>-7 \times 6</math>    b.) <math>-6 \times -7</math>            c.) <math>-7 \times -6</math>    d.) <math>-6 \times 7</math></p> <p>7.NS.2</p>	
<p>When Sarah invests \$4000 in a money market account she receives 1.4% simple interest annually. If she doesn't add or subtract any money how much interest will she earn after 4 years?</p> <p>7.EE.3</p>	
<p>A bag of jelly beans contains 6 red, 4 orange, 5 pink, 3 green and 2 white jelly beans. What is the probability of choosing the following at random?</p> <p>a.) 1 Pink jelly bean    b.) 1 Red jelly bean            c.) Either 1 white or green jelly bean</p> <p>7.SP.5</p>	

# Week Four



Problem	Work & Answer
<p>7.NS.3                      Anna earned \$9 an hour babysitting. She wants to buy a 16 GB iPod that is \$120. Anna has saved \$45 so far. How many more hours of babysitting does she need to do to earn the rest to purchase the iPod?</p>	
<p>7.EE.4                      Solve each inequality.                      a.) <math>x + 4 &lt; 16</math>      b.) <math>-2 &gt; x + 3</math>                      c.) <math>\frac{1}{2}(x + 4) \leq 14</math></p>	
<p>7.RP.1                      Simplify each complex fraction.                      a.) <math>\frac{2\frac{1}{4}}{1\frac{1}{8}}</math>      b.) <math>\frac{7\frac{1}{3}}{4}</math></p>	
<p>7.EE.2                      An item is marked down by 25%. What percentage of the original cost will you pay?</p>	
<p>7.G.1                      Find a new perimeter and area if the shape is enlarged by a scale factor of two.                      5.5 cm                        3.25cm</p>	



# Week Five

## Problem

## Work & Answer

Write the property that best matches the following:

a.)  $13 + -13 = 0$

b.)  $(-12) + 16 = 16 + (-12)$

7.NE.1

Find the diameter of a circle if the area is  $153.86\text{m}^2$ .

Use 3.14 for pi.

7.G.4

Write an expression to show the total cost of an item  $x$  with a 35% discount.

7.EE.2

Joe and two friends are going to a concert. The total cost is \$186. If there is a \$24 service fee, write and solve an equation to find out how much one ticket is.

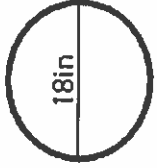
7.EE.4

A rectangular pyramid is sliced by a plane parallel to its base. What shape is shown from the cross section?


7.G.3

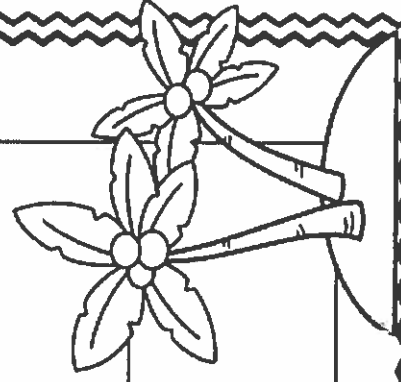
# Week Six

Problem	Work & Answer																		
<p>Four friends equally share the cost of their dinner that was \$64 plus a 20% tip. If each person contributes \$19, will that be enough to cover the bill with tip? Explain.</p> <p>7.EE.4</p>																			
<p>Solve the following:</p> <p>a.) <math>\frac{-24}{3}</math>      b.) <math>\frac{-36}{-4}</math></p> <p>7.NS.2</p>																			
<p>People in two sample groups were asked to identify their favorite kind of pizza. Study the results and circle a generalization.</p> <table border="1" data-bbox="862 1059 1024 1768"> <thead> <tr> <th>Sample Group</th> <th>Cheese</th> <th>Sausage</th> <th>Pepperoni</th> <th>Veggie</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>30</td> <td>45</td> <td>7</td> <td>18</td> <td>100</td> </tr> <tr> <td>B</td> <td>48</td> <td>24</td> <td>15</td> <td>13</td> <td>100</td> </tr> </tbody> </table> <p>7.SP.2</p>	Sample Group	Cheese	Sausage	Pepperoni	Veggie	Total	A	30	45	7	18	100	B	48	24	15	13	100	<p>a.) Cheese is the most popular in each group.</p> <p>b.) Overall cheese and sausage are most preferred.</p> <p>c.) Sausage is always the favorite.</p>
Sample Group	Cheese	Sausage	Pepperoni	Veggie	Total														
A	30	45	7	18	100														
B	48	24	15	13	100														
<p>Factor each by using the GCF.</p> <p>a.) <math>36x + 81</math>      b.) <math>24a + 36</math></p> <p>7.EE.1</p>																			
<p>Find the following based on the circle. Use 3.14 for pi.</p> <p>a.) The area of the circle</p> <p>b.) The diameter of the circle</p> <p>7.G.4</p>																			



# Week Seven

Problem	Work & Answer
Circle which has the same value as the following: $-6 + (-9 + 14)$  7.NS.1	a.) $(-6 + 9) - 14$ b.) $(6 - 9) + 14$ c.) $(-6 + -9) + 14$
Find the surface area of the given prism:   7.G.6	
The asking price on a house was \$350,000. Because it was on the market for six months it was finally sold for \$297,500. What percentage of the original price was it sold for?  7.RF.3	
Solve each inequality. a.) $3x < -24$ b.) $14 \leq -7x$ c.) $4x - 8 > -40$  7.EE.4	
Divide. Write the answer in simplest form. $-2\frac{1}{3} \div 1\frac{1}{12}$  7.NS.2	



# Summer Math Calendar Evaluation for Students

Please rate the following on a scale from 1-10, with 1 being the easiest and 10 being the hardest.

\_\_\_\_\_ How would you rate the difficulty of the problems in general throughout the summer math calendar?

What types of problems in the calendar were the most difficult and why?

What types of problems in the calendar were the easiest and why?

When did you complete the calendar? How did you pace yourself when completing the calendar? (Did you do it every day, once a week, completed it in a few days?)

If you could change anything about the summer math calendar what would you change and why?

*Thank you for taking the time to complete this evaluation! I really appreciate your input!*

# Summer Math Calendar Evaluation for Parents

- 1.) How difficult did you feel this summer math calendar was for your student? Was it too easy or too difficult or somewhere in the middle?
- 2.) How much help did you give your son or daughter in completing this calendar?
- 3.) What would you say was the best thing about the summer math calendar?
- 4.) What would you say was the most difficult thing about the summer math calendar?
- 5.) How did you feel about the amount of problems given to your student?
- 6.) If you could change one thing about the summer math calendar in general, what would you change?

*Thank you for taking the time to complete this evaluation! I really appreciate what you have to say!*