



**Incoming 7<sup>th</sup> grade Math Summer**  
**Assignment**  
*Sebastian Middle School*  
*Summer 2016*



2955 Lewis Speedway, St Augustine, FL 32084

We hope you had a wonderful 6<sup>th</sup> grade year and we hope you have a great summer. At Sebastian, we believe it is important to practice our math skills over the summer so that we are ready for the next school year. Student mastery of the basic math skills is as important to success in future mathematical procedures and reasoning as learning the alphabet is to reading and writing. In addition to the summer assignment, please be sure to review the following math concepts to prepare for 7<sup>th</sup> grade math:

- Multiplication (up to 12's)
- Adding & Subtracting two and three digit numbers
- Multiplying & Dividing two and three digit numbers
- Find the prime factorization of numbers from 2 through 50, express in exponential notation. Ex.  $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3^1$
- Multiply and divide by 10's, 100's and 1,000's using mental math.
- Add, subtract, multiply, and divide fractions

You can practice any math skill on your IXL account this summer; your account information will expire in August 2016. We challenge you to try to complete as many skills as you can with a 75% smart score or higher!

If you need another copy of the math assignment you can go on Sebastian's website at <http://www-sms.stjohns.k12.fl.us/curriculum/sebastian-summer-learning/> and print another copy.

This packet will be due to your math teacher the first week of school. Should you have any questions, please feel free to contact Mr. McCoy at [tracy.mccoy@stjohns.k12.fl.us](mailto:tracy.mccoy@stjohns.k12.fl.us).

Thank you,

Sebastian Math Department



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Student Name: \_\_\_\_\_

1. Determine the meaning of the following words:

- Product: \_\_\_\_\_
- Sum: \_\_\_\_\_
- Quotient: \_\_\_\_\_
- Difference: \_\_\_\_\_
- Expression: \_\_\_\_\_
- Equation: \_\_\_\_\_
- Rational Number: \_\_\_\_\_

2. Simplify the expression:  $1 + 2 \times 3 - \frac{18}{3} + (5 - (2 + 2))$

3. In a survey, 13 out of 25 people surveyed have a cat. What percent of the people surveyed have a cat?

4. Lara jogs  $\frac{1}{5}$  kilometer in  $\frac{1}{6}$  hour. What is Lara's rate in kilometers per hour? Write your answer in decimal form.

5. The temperature rises 15 degrees Fahrenheit ( $^{\circ}\text{F}$ ) and then drops by  $8^{\circ}\text{F}$ . If the temperature started at  $-11^{\circ}\text{F}$  what temperature change would be required to bring the temperature to  $0^{\circ}\text{F}$ ?

- A. an increase of  $4^{\circ}\text{F}$
- B. a decrease of  $4^{\circ}\text{F}$
- C. a decrease of  $19^{\circ}\text{F}$
- D. an increase of  $19^{\circ}\text{F}$

6. Today, Mr. Wayne and Mr. Pickett are both wearing the same tie. Mr. Wayne repeats his ties every 12 days, and Mr. Pickett repeats his ties every 10 days. In how many days will both men be wearing the same tie again?
7. Tommy had 10 apples and bought  $x$  more apples. Write an expression for this statement.
8. Janie is at the gas station. She has \$53.25 and buys a road map that costs \$7.68.  
Part A. After she buys the road map, how much money will Janie have left?
- Part B. Janie wants to buy 10 gallons of gas with the remaining money. What is the highest price per gallon that she can afford? Use words and/or numbers to show your work.
9. An expression is shown:  $7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7$ . What is the expression written in exponential form?
10. The formula  $C = \frac{5}{9}(F - 32)$  is used to determine the temperature in Celsius, if given the temperature in Fahrenheit. If it is 98 degree Fahrenheit outside, what would be the temperature in Celsius?
11. Olivia and Ray walk to school. Olivia walks  $\frac{1}{4}$  of a mile to school. Her walk is  $\frac{2}{3}$  the distance that Ray walks to school. What is the total distance, in miles, that Ray walks to school?
12. Mr. Marquis had a metal pipe that was 1,000 cm in length. He cut the pipe into 16 shorter pieces of equal length. Mr. Marquis used the expression below to find the length of each of the smaller pieces of pipe.  $1,000 \div 16$  What is the length of each of the smaller pieces of pipe?

For questions 12 – 15, multiply or divide, showing all work. Do not use a calculator.

13.  $4.5 \div 0.9$

14.  $2.7(7.8)$

15.  $\frac{6}{7} \times \frac{5}{9}$

16.  $\frac{5}{4} \div \frac{3}{8}$

17. You have \$50 in your savings account. Each week you deposit \$5 into your account. Write an expression that models this situation.

18. Determine if the expressions  $5 + 3b$  and  $3b + 5$  are equivalent, when simplified.

19. Order the numbers from least to greatest:

(Hint: Change all of your numbers to decimals before comparing)

$$\frac{5}{8}, 60\%, 0.64, \frac{3}{4}, 0.756$$

20. Find the mean, median, mode, and range of the data set:

5, 9, 12, 12, 14, 15, 12, 3, 10

21. In the morning, Emily studied 40 minutes for a math test. Later that evening, she studied for  $x$  more minutes. Write an expression that represents this information.

22. A snack bar sells 5 items with a mean (average) price of \$0.60, as shown below.

Snack Menu	
Chips	\$0.50
Juice	\$0.80
Apple	\$0.60
Candy	\$0.70
Gum	\$0.40

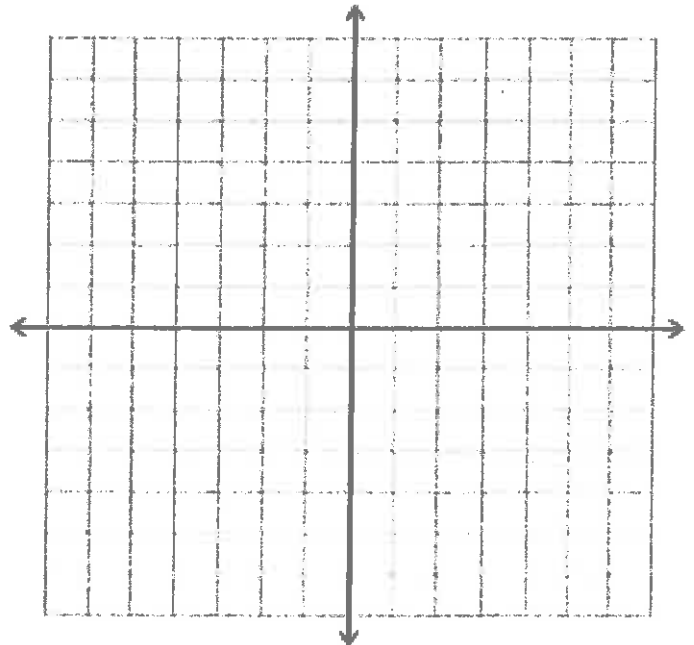
Which pair of items could be added to the menu without changing the average price?

- (A) Banana for 60 cents
- (B) Soda for \$0.75
- (C) Cookie for \$0.50
- (D) Energy Bar for 45 cents
- (E) Soda for  $\frac{3}{4}$  of a dollar

23. If a freight train travels at a speed of 20 miles per hour for 6 hours, how far will it travel?

24. Graph the following points on the graph and label them with the appropriate letter:

- Point A: (-1,9)
- Point B: (0,3)
- Point C: (-4,0)
- Point D: (2, -3)
- Point E: (-8,-8)



25. Samuel's rectangular room has a perimeter of 44 feet. The length of the room is 11 feet.

(A) What is the area of his room?

(B) Samuel wanted to put new flooring in his room, so he went to the store to see how much it would cost. It costs \$12.10 per square feet. How much would it cost for the new flooring?

## Adding/Subtracting Integers

**Find each sum.**

1)  $(-12) + 7$

2)  $(-10) + (-7)$

3)  $(-6) + 12$

4)  $8 + 7$

5)  $3 + 4$

6)  $(-45) + 9$

7)  $(-1) + (-46)$

8)  $(-30) + 10$

9)  $(-34) + 50$

10)  $38 + (-5)$

**Find each difference.**

11)  $2 - (-2)$

12)  $(-1) - 10$

13)  $8 - 7$

14)  $(-8) - (-6)$

$15) 11 - 4$

$16) 48 - (-31)$

$17) 18 - 41$

$18) (-38) - 30$

$19) (-1) - (-3)$

$20) (-1) - (-40)$

**Evaluate each expression.**

$21) (-10) - 47$

$22) (-29) - 29$

$23) 13 + (-29)$

$24) 38 + 22$

$25) (-32) - 44$

$26) (-12) + (-11)$

$27) 2 + 15 + 4$

$28) 16 + (-13) + 5$

$29) 2 - (-9) - 8$

$30) 10 + 3 - (-8)$

## Multiplying and Dividing Positives and Negatives

Find each quotient.

1)  $\frac{10}{5}$

2)  $\frac{-24}{12}$

3)  $\frac{-20}{-2}$

4)  $\frac{-300}{-20}$

5)  $\frac{65}{5}$

6)  $\frac{-66}{-6}$

7)  $\frac{75}{-15}$

8)  $\frac{-56}{-14}$

9)  $\frac{102}{-17}$

10)  $\frac{-72}{-4}$

11)  $153 \div 17$

12)  $12 \div -3$

13)  $48 \div 6$

14)  $-120 \div -20$

15)  $306 \div 18$

16)  $-65 \div 13$



$17) -85 \div -17$

$18) 128 \div -16$

$19) -180 \div 15$

$20) 234 \div -13$

**Find each product.**

$21) -11 \times 9$

$22) -7 \times -12$

$23) -8 \times -11$

$24) -6 \times 4$

$25) -3 \times -11$

$26) -5 \times -9$

$27) 9 \times -7$

$28) -9 \times -3$

$29) 12 \times -12$

$30) 11 \times -6$

$31) 6 \times -5 \times 3$

$32) 6 \times -1 \times 2$

$33) 8 \times -6 \times -3$

$34) -3 \times 6 \times -6$

$35) (3)(3)(-1)(3)$

$36) (-3)(3)(-3)(-3)$