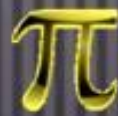




FROEBEL BILINGUAL SCHOOL

# MATH SKILLS SHARPENERS



Going to **NINTH GRADE**

Singapore Math Summer Workbook

9



**2020 SUMMER Mathematic  
Skills Sharpener  
Going to Ninth Grade**

<b>STUDENT'S NAME</b>	<b>DATE</b>
<b>TEACHER COMING FROM</b>	<b>SCORE</b>
<b>TEACHER GOING TO</b>	
<b>PARENT'S SIGNATURE</b>	<b>DATE RECEIVED</b>

# SKILLS SHARPENER GOING NINTH GRADE

SCORE - \_\_\_/\_\_\_

## WEEK1.

DAY 1. ADD THE FOLLOWING POSITIVE AND NEGATIVE INTEGERS.

$$\begin{array}{r} -2 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} -4 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} -25 \\ +5 \\ \hline \end{array}$$

DAY 2. SUBTRACT THE FOLLOWING POSITIVES AND NEGATIVE INTEGERS.

$$\begin{array}{r} 29 \\ -(-16) \\ \hline \end{array}$$

$$\begin{array}{r} -5 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} -9 \\ -(-5) \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} -7 \\ -(-5) \\ \hline \end{array}$$

DAY 3. WRITE THE PRODUCTS FOR THE FOLLOWING EXERCISES.

$$\begin{array}{r} -26 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} -43 \\ \times -13 \\ \hline \end{array}$$

$$\begin{array}{r} -87 \\ \times -96 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times -3 \\ \hline \end{array}$$

$$\begin{array}{r} -5215 \\ \times -5 \\ \hline \end{array}$$

DAY 4. EVALUATE THE FOLLOWING EXPRESSIONS. WHEN  $r = 4$  AND  $s = 6$

1.  $3.5s+r$

2.  $(r+1)^2 - s$

3.  $4r + s^2$

4.  $2(r^2-15)$

5.  $s^2 + r^2$

## WEEK2.

DAY 1. SOLVE THE FOLLOWING EQUATIONS BY ADDING AND SUBTRACTING.

1.  $x+5=20$

2.  $y-3=-2$

3.  $\frac{1}{7}=g+\frac{3}{7}$

4.  $-13+r=30$

5.  $-2=x+6$

6.  $\frac{1}{6}=\frac{1}{4}+w$

DAY 2. SOLVE THE FOLLOWING MULTIPLYING OR DIVIDING.

1.  $\frac{t}{4} = -6$

2.  $\frac{a}{17} = -8$

3.  $-7y = 135$

4.  $\frac{a}{-17} = -17$

5.  $-95 = 5b$

6.  $301 = 43b$

**DAY 3. FIND THE SLOPE OF THE BY USING RISE OVER RUN**

1.  $(4,-2)$  and  $(-1,2)$

2.  $(-2,-2)$  and  $(7,-2)$

3.  $(5,-7)$  and  $(6,-4)$

4.  $(\frac{3}{4}, \frac{7}{5})$  and  $(\frac{1}{4}, \frac{2}{5})$

**DAY 4. Write each inequality in words then graph them.**

Inequality	Words	Graph
$x < 2$		
$m > 5$		
$z \leq 1$		
$j \geq 31$		

## WEEK 3.

### DAY 1. SOLVE EACH MULTI-STEP EQUATION

1.  $2m + 1 = 13$

2.  $4(x + 2) = 6$

3.  $\frac{1}{4}x + \frac{2}{3} = \frac{3}{4}$

4.  $2d + 21 = 11$

5.  $3j + 41 = 35$

### DAY 2. ADD FINDING THE SUM OF THE POLYNOMIALS BY COMBINING LIKE TERMS

1.  $(3y + 2) + (6y + 9)$

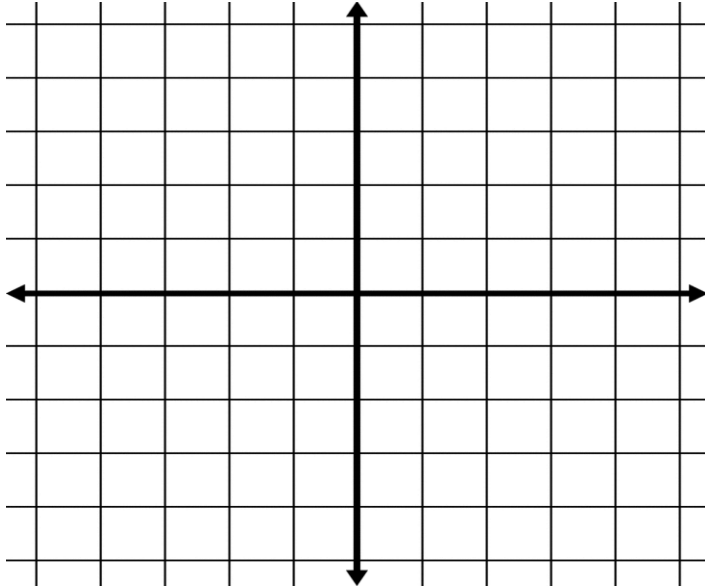
2.  $(4z + 8) + (2z - 5)$

3.  $(3x + 2a) + (x + 3a)$

4.  $(2m + 4) + (6 + 6m)$

5.  $(10x + 2y) + 3$

**DAY 4.** Plot the point in a coordinate plane. Describe the location of the point (2pts each).



1. A(0,5)

2. B(-1,0)

3. C(-4,-3)

4. D( 2,-5)

5. E. (4,4)

6) F.(2,2)

7) G( 3,-5)

## WEEK 4.

DAY 1. For the given expression, identify the terms, like terms, coefficients, and constant terms then simplify the expression.

**1)**  $5x + 3 + 8x$

**2)**  $-7b + 4 + b - 10$

**3)**  $5 + 8w - 6 - w$

DAY 3. Simplify each variable expression

**1)**  $4x + 3x$

**2)**  $3(2y + 4y)$

**3)**  $-w + 4 - (3w - 13)$

DAY 4. Solve each equation containing parenthesis and like terms check your answer

**1)**  $6 = -2(7 - c)$

**2)**  $5x - 2(x - 1) = 8$

**3)**  $3n - 40 + 2n = 15$

**4)**  $4(x + 5) = 16$



## WEEK 5.

### DAY 1. SOLVE THE FOLLOWING MULTISTEP EQUATIONS BY COMBINING LIKE TERMS

1.  $6x + 12 = 106$

2.  $8x + 2x + 5 = 125$

3.  $\frac{3}{4}x + \frac{1}{2} = \frac{7}{8}$

4.  $3x = 45$

### DAY 2. FIND EACH PRODUCT OR QUOTIENT, IF POSSIBLE SIMPLIFY EACH FRACTION

1.  $\frac{3}{5} \times \frac{1}{2}$

2.  $\frac{7}{9} \times \frac{1}{3}$

3.  $\frac{5}{6} \times \frac{2}{8}$

4.  $3\frac{1}{4} \times \frac{6}{7}$

### DAY3. EVALUATE EACH EXPRESSION IF $x = 4$ , $y = 6$ , and $z = 3$ .

1.  $x + y + z$

2.  $3x + y$

3.  $x - z$

4.  $x + y - 3z$

5.  $15z$

### DAY 4. FIND THE SUM AND DIFFERENCE OF EACH FRACTION

1.  $\frac{1}{4} + \frac{1}{4}$

2.  $\frac{5}{8} - \frac{1}{2}$

3.  $\frac{4}{5} - \frac{2}{7}$

4.  $\frac{1}{4} + \frac{1}{8}$

## WEEK 6.

DAY 1. Solve each inequality by adding or subtracting graph your answer

**1)**  $216 > u + 100$

**2)**  $p + 2 \geq -3$

**3)**  $x + 3 \geq -3$

**4)**  $-45 \geq g - 16$

Part III Solve each inequality by Multiplying and Dividing Graph your answer

**1)**  $\frac{y}{3} < -83$

**2)**  $-9x \leq 136$

**3)**  $65 \leq 13$

**4)**  $4m < -60$

Part IV Solve each Multistep inequality graph your answer

**1)**  $45 + 2b > 61$

**2)**  $2y + 7 \geq 11$

**3)**  $10 > 6 + \frac{y}{5}$

**4)**  $3 + \frac{b}{5} \geq 7$

**DAY4. SOLVE THE FOLLOWING PROBLEMS WITH DECIMALS BY ADDING SUBTRACTING MULTIPLYING OR DIVIDING0...**

**1.  $0.7 \times 8.4$**

**2.  $11.4 \div 0.7$**

**3.  $12.5 + 8.23$**

**4.  $7.25 + 5.45$**

**5.  $6 \div 0.8$**

## **WEEK 7.**

**DAY 1. CONVERT THE FOLLOWING FRACTIONS INTO DECIMALS.**

$$\frac{5}{10} =$$

$$\frac{8}{12} =$$

$$\frac{9}{11} =$$

$$\frac{4}{9} =$$

**DAY 2. WRITE THE FOLLOWING FRACTIONS AS MIXED NUMBERS.**

$$\frac{5}{3} =$$

$$\frac{10}{4} =$$

$$\frac{9}{4} =$$

$$\frac{25}{4} =$$

**DAY 3. Factor the monomial**

**1.  $36a^4b^2$**

**2.**  $42x^4y$

**3.**  $15r^2s^2$

**4.**  $72w^6z$

**DAY 4.** Solve each equation show all steps (4pts each)

**1.**  $\frac{4}{7}s = -12$

**2.**  $\frac{5}{6}m = -20$

## **WEEK 8.**

**DAY 1.** Graph

1.  $y = 3x - 1$

**X= z,2,3,4,5**

**DAY 2.** find the x and y intercepts from the given equations

**1.**  $3x - 7y = 21$

**2.**  $5x - 2y = 10$

**DAY 3. MULTIPLY THE FOLLOWING INTEGERS.**

**1.**  $-5(4)$

**2.**  $-3(-6)$

**3.**  $4(-9)$

**4.**  $-15(-2)$

**DAY 4. DIVIDE THE FOLLOWING INTEGERS**

**1.**  $18 \div (-2)$

**2.**  $-12 \div (-4)$

**3.**  $\frac{-32}{-8}$

**4.**  $\frac{25}{-5}$

# F R O E B E L

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