

Dear Rising up 6th grade math students,

Welcome to Saint Mary Middle School. Here is your first assignment to prepare you for a wonderful year. Over the summer it is good to practice your math skills so you will be ready to go at the beginning of the school year. Attached you will find a packet of math work for you to do over the summer. Pace yourself and do a little every day. At the beginning of the school year, hand in your completed math packet to your teacher. Have a restful and fun summer!

God Bless,

Mrs. Richards

Mrs. Richards

Name _____

Review

2

Adding and Subtracting Decimals

Find $1.7 + 2.45$.

Find $36.57 - 4.6$.

Line up the decimal points.

$$\begin{array}{r} \downarrow \quad \quad \uparrow \\ 1.7 \quad \quad 1.70 \leftarrow \text{Write zeros to} \\ + 2.45 \quad + 2.45 \quad \text{show place value.} \\ \hline 4.15 \end{array}$$

\uparrow Place decimal point
in answer.

Line up the decimal points.

$$\begin{array}{r} \downarrow \quad \quad \uparrow \quad \uparrow \\ 36.57 \quad 36.57 \\ - 4.6 \quad - 4.60 \leftarrow \text{Write zeros to} \\ \hline 31.97 \end{array}$$

\uparrow Place decimal point
in answer.

Find each sum or difference.

1. $\begin{array}{r} \downarrow \\ 2.65 \\ + 13.30 \\ \hline \end{array}$

2. $\begin{array}{r} \downarrow \\ 14.10 \\ - 3.05 \\ \hline \end{array}$

3. $\begin{array}{r} 744 \\ + 36.2 \\ \hline \end{array}$

4. $\begin{array}{r} 9 \\ - 0.6 \\ \hline \end{array}$

5. $\begin{array}{r} 8.97 \\ + 66 \\ \hline \end{array}$

6. $\begin{array}{r} 100 \\ - 0.22 \\ \hline \end{array}$

7. $\begin{array}{r} 6.8 \\ + 237.29 \\ \hline \end{array}$

8. $\begin{array}{r} 0.5 \\ - 0.23 \\ \hline \end{array}$

9. $15.4 - 8 = \underline{\hspace{2cm}}$

10. $3 - 2.54 = \underline{\hspace{2cm}}$

11. $1.34 + 4.1 = \underline{\hspace{2cm}}$

12. $133.01 - 5.6 = \underline{\hspace{2cm}}$

13. $448 + 1.75 + 80.3 = \underline{\hspace{2cm}}$

14. $12.3 + 0.61 + 100 = \underline{\hspace{2cm}}$

15. On the 3-days of their vacation, the Davis family traveled 417 mi, 45.3 mi, and 366.9 mi. How far did they travel all together?

16. Etta bought a calculator for \$15. Glenn found the same model for \$9.79. How much more did Etta pay than Glenn did?

Name _____

Review
4

Multiplying with Decimals

Find 4.3×2.7 .

Multiply as you would with whole numbers.

$$\begin{array}{r} 2 \\ 4.3 \\ \times 2.7 \\ \hline 301 \\ 860 \\ \hline 1161 \end{array}$$

Count the number of decimal places in both factors. The total is the number of decimal places in the product.

$$\begin{array}{rcl} 4.3 & \leftarrow & 1 \text{ decimal place} \\ \times 2.7 & \leftarrow & + 1 \text{ decimal place} \\ \hline 11.61 & \leftarrow & 2 \text{ decimal places} \end{array}$$

Find each product.

1. $\begin{array}{r} 14 \\ \times 8.8 \\ \hline 112 \\ 1120 \end{array}$

2. $\begin{array}{r} 1.6 \\ \times 9 \\ \hline \end{array}$

3. $\begin{array}{r} 0.4 \\ \times 3.2 \\ \hline \end{array}$

4. $\begin{array}{r} 0.05 \\ \times 0.3 \\ \hline \end{array}$

5. $\begin{array}{r} 2.15 \\ \times 8.3 \\ \hline \end{array}$

6. $\begin{array}{r} 3.3 \\ \times 0.12 \\ \hline \end{array}$

7. $\begin{array}{r} 0.51 \\ \times 4.2 \\ \hline \end{array}$

8. $\begin{array}{r} 1.35 \\ \times 13 \\ \hline \end{array}$

9. $23 \times 0.47 =$ _____

10. $0.9 \times 5 =$ _____

11. $168 \times 2.25 =$ _____

12. $0.8 \times 0.11 =$ _____

13. $20 \times 20.2 =$ _____

14. $4.9 \times 0.3 =$ _____

15. A roll of paper towels contained 250 sheets.
Each sheet was 8.75 inches long. How long was the roll?

16. Tania bought 3 new sweaters. Each sold for \$19.99.
How much did she spend?

Name _____

Review

6

Dividing with Decimals

Find $36.8 \div 16$.

<div style="text-align: center;"> $\begin{array}{r} \downarrow \\ 2. \\ 16 \overline{) 36.8} \end{array}$ </div> <p style="text-align: center;">Place the decimal point.</p> <div style="text-align: center;"> $\begin{array}{r} 2 \\ 20 \overline{) 40} \end{array}$ <p>← Think: 20)40</p> <p>Try 2 in the quotient.</p> </div>	<div style="text-align: center;"> $\begin{array}{r} 2.3 \\ 16 \overline{) 36.8} \\ \underline{-32} \\ 48 \\ \underline{-48} \\ 0 \end{array}$ </div> <p>Multiply 2×16. Subtract. Bring down 8. Multiply 3×16. Subtract.</p>
--	--

Find each quotient.

1. $6 \overline{) 13.8}$

2. $6 \overline{) 131.4}$

3. $9 \overline{) 141.3}$

4. $5 \overline{) 388.5}$

$$\begin{array}{r} \\ -12 \\ \hline \\ - \\ \hline \end{array}$$

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

5. $7 \overline{) 669.2}$

6. $28 \overline{) 263.2}$

7. $41 \overline{) 274.7}$

8. $7 \overline{) 34.23}$

9. $269.12 \div 8 =$ _____

10. $311.56 \div 4 =$ _____

11. $2,229.62 \div 46 =$ _____

12. $1,449.09 \div 81 =$ _____

13. A photographer bought 36 rolls of film for \$136.44.
What was the price of one roll?

14. Four students each ran 100 m in a 400-m relay race.
The team's total time was 49.44 sec. Find the average

Name _____

Review

7

Problem Solving: Skills

To improve his vocabulary, Damon learned 15 new words each week. How many words did he learn in 10 weeks?

Operation: He learned **15 words per week**.
There were **10 weeks**.
I will use **multiplication**.

Solution: $15 \times 10 = 150$
Damon learned **150 new words**.

Write which operation you would use. Then solve.

1. For Class Day activities, the **594 students** at West Side School were divided into **18-student teams**. How many teams were there?

2. Dixie loaded a 387.5-lb piano, a 3.75-lb lamp, and a 59-lb desk into her pickup truck. What was the total weight in the pickup?

3. The \$198 bike that Ira wants is on sale for \$149.95. How much can he save by buying the bike on sale?

4. Taylor's 14-minute phone call cost \$8.40. How much did the call cost per minute?

5. At the fish store, Lamarr bought a 1.2-lb flounder fillet. The price of the flounder was \$3.95 per lb. How much did the fillet cost?

Name _____

Review 10

Adding and Subtracting Fractions

Find $\frac{2}{3} + \frac{1}{6}$.

Find $\frac{1}{4} - \frac{1}{5}$.

<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>3</td><td>6</td><td>9</td><td>12</td><td>15</td> </tr> <tr> <td>6</td><td>12</td><td>18</td><td>24</td><td>30</td> </tr> </table> <p>Multiples of 3 Multiples of 6</p> <p>The least common denominator is 6.</p> <p>Write equivalent fractions. $\frac{2}{3} = \frac{4}{6}$</p> <p>Add. $\frac{1}{6} = \frac{1}{6}$</p> $\begin{array}{r} \frac{4}{6} \\ + \frac{1}{6} \\ \hline \frac{5}{6} \end{array}$	3	6	9	12	15	6	12	18	24	30	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>4</td><td>8</td><td>12</td><td>16</td><td>20</td> </tr> <tr> <td>5</td><td>10</td><td>15</td><td>20</td><td>25</td> </tr> </table> <p>Multiples of 4 Multiples of 5</p> <p>The least common denominator is 20.</p> <p>Write equivalent fractions. $\frac{1}{4} = \frac{5}{20}$</p> <p>Subtract. $\frac{1}{5} = \frac{4}{20}$</p> $\begin{array}{r} \frac{5}{20} \\ - \frac{4}{20} \\ \hline \frac{1}{20} \end{array}$	4	8	12	16	20	5	10	15	20	25
3	6	9	12	15																	
6	12	18	24	30																	
4	8	12	16	20																	
5	10	15	20	25																	

Find each sum or difference.

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

4			
3			

2. $\frac{11}{12} - \frac{5}{6} =$ _____

12			
6			

3. $\frac{1}{3} + \frac{4}{9} =$ _____

4. $\frac{3}{7} + \frac{2}{7} =$ _____ 5. $\frac{11}{12} - \frac{5}{12} =$ _____ 6. $\frac{1}{2} + \frac{1}{3} =$ _____ 7. $\frac{1}{3} - \frac{1}{5} =$ _____

8. $\frac{3}{8} - \frac{1}{6} =$ _____ 9. $\frac{3}{5} + \frac{3}{10} =$ _____ 10. $\frac{1}{2} + \frac{2}{5} =$ _____ 11. $\frac{2}{3} - \frac{1}{4} =$ _____

12. Meg practiced the piano for $\frac{5}{12}$ hr. She did homework for $\frac{3}{4}$ hr. How much longer did she do homework than she practiced the piano?
- _____

Name _____

Review

11

Adding Mixed Numbers

Add $1\frac{2}{3} + 2\frac{1}{6}$.

Write equivalent fractions.	Add the fractions.	Add the whole numbers.
$\begin{array}{r} 1\frac{2}{3} = 1\frac{4}{6} \\ + 2\frac{1}{6} = 2\frac{1}{6} \\ \hline \end{array}$ <p>The LCD of 3 and 6 is 6.</p>	$\begin{array}{r} 1\frac{2}{3} = 1\frac{4}{6} \\ + 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 3\frac{5}{6} \end{array}$	$\begin{array}{r} 1\frac{2}{3} = 1\frac{4}{6} \\ + 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 3\frac{5}{6} \end{array}$

Find each sum. Simplify.

1.
$$\begin{array}{r} 3\frac{1}{3} = 3\frac{5}{15} \\ + 2\frac{2}{5} = 2\frac{6}{15} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\frac{1}{3} = 2\frac{2}{6} \\ + 4\frac{1}{6} = 4\frac{1}{6} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 2\frac{1}{2} \\ + 3\frac{1}{2} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6\frac{5}{6} \\ + 4\frac{3}{8} \\ \hline \end{array}$$

5.
$$\begin{array}{r} 1\frac{5}{6} \\ + 1\frac{1}{3} \\ \hline \end{array}$$

6.
$$\begin{array}{r} 6\frac{1}{4} \\ + 4\frac{5}{6} \\ \hline \end{array}$$

7.
$$\begin{array}{r} 1\frac{1}{3} \\ + 5\frac{2}{3} \\ \hline \end{array}$$

8.
$$\begin{array}{r} 3\frac{4}{9} \\ + 4\frac{5}{9} \\ \hline \end{array}$$

9. $6\frac{3}{5} + 2\frac{3}{4} =$ _____

10. $1\frac{2}{7} + 2\frac{1}{3} =$ _____

11. $5\frac{1}{4} + 3\frac{1}{3} =$ _____

12. $1\frac{1}{2} + 5\frac{1}{5} =$ _____

13. Marcus rode $5\frac{3}{10}$ mi on his bike in the morning and $4\frac{4}{5}$ mi in the afternoon. How far did he ride all together?

14. A storage box measuring $1\frac{1}{6}$ ft in height was stacked atop a box $1\frac{3}{4}$ ft in height. Find the total height of the two boxes.

Name _____

Review
12

Subtracting Mixed Numbers

Subtract $3\frac{2}{3} - 2\frac{1}{6}$.

<p><i>Write equivalent fractions.</i></p> $\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline \end{array}$ <p>The LCD of 3 and 6 is 6.</p>	<p><i>Subtract the fractions.</i></p> $\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline \frac{3}{6} \end{array}$	<p><i>Subtract the whole numbers. Simplify.</i></p> $\begin{array}{r} 3\frac{2}{3} = 3\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 1\frac{3}{6} = 1\frac{1}{2} \end{array}$
---	---	---

Find each difference. Simplify.

1.
$$\begin{array}{r} 3\frac{1}{3} = 3\frac{5}{15} \\ - 2\frac{1}{5} = 2\frac{3}{15} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\frac{1}{3} = 2\frac{2}{6} \\ - 1\frac{1}{6} = 1\frac{1}{6} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 3\frac{2}{3} \\ - 2\frac{1}{3} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6\frac{5}{8} \\ - 2\frac{1}{8} \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3\frac{7}{10} \\ - 1\frac{2}{5} \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7\frac{7}{8} \\ - 2\frac{3}{4} \\ \hline \end{array}$$

7.
$$\begin{array}{r} 3\frac{3}{4} \\ - 2\frac{1}{6} \\ \hline \end{array}$$

8.
$$\begin{array}{r} 5\frac{5}{6} \\ - 1\frac{1}{8} \\ \hline \end{array}$$

9. $2\frac{2}{3} - 1\frac{1}{4} = \underline{\hspace{2cm}}$

10. $4\frac{3}{4} - 4\frac{2}{5} = \underline{\hspace{2cm}}$

11. $2\frac{1}{3} - 1\frac{2}{3} = \underline{\hspace{2cm}}$

12. $4\frac{4}{9} - 3\frac{2}{3} = \underline{\hspace{2cm}}$

13. $3\frac{3}{8} - 2\frac{5}{6} = \underline{\hspace{2cm}}$

14. $5\frac{1}{3} - 2\frac{5}{8} = \underline{\hspace{2cm}}$

15. Greg found two rocks for his collection. One weighed $4\frac{1}{4}$ lb and the other weighed $2\frac{7}{8}$ lb. Find the difference in weights.

Name _____

Review

13

Multiplying Fractions and Mixed Numbers

Find $\frac{2}{4} \times \frac{3}{5}$.

Multiply the numerators. $\frac{2}{4} \times \frac{3}{5} = \frac{6}{20}$	Multiply the denominators. $\frac{2}{4} \times \frac{3}{5} = \frac{6}{20}$	Simplify. $\frac{2}{4} \times \frac{3}{5} = \frac{6}{20} = \frac{3}{10}$
---	---	---

Find $1\frac{2}{4} \times \frac{3}{5}$.

Rewrite $1\frac{2}{4}$ as an improper fraction. $1\frac{2}{4} = \frac{(1 \times 4) + 2}{4} = \frac{6}{4}$	Multiply. $\frac{6}{4} \times \frac{3}{5} = \frac{18}{20}$	Simplify. $\frac{6}{4} \times \frac{3}{5} = \frac{18}{20} = \frac{9}{10}$
--	---	--

Find each product. Simplify.

1. $\frac{2}{10} \times \frac{5}{6} = \frac{10}{60} = \underline{\hspace{1cm}}$ 2. $1\frac{3}{9} \times \frac{3}{4} = \frac{12}{9} \times \frac{3}{4} = \underline{\hspace{1cm}}$ 3. $3 \times \frac{1}{2} = \frac{3}{1} \times \frac{1}{2} = \underline{\hspace{1cm}}$

4. $\frac{8}{10} \times \frac{1}{4} = \underline{\hspace{1cm}}$ 5. $\frac{5}{8} \times \frac{6}{10} = \underline{\hspace{1cm}}$ 6. $4 \times \frac{1}{4} = \underline{\hspace{1cm}}$

7. $\frac{1}{4} \times 3\frac{1}{5} = \underline{\hspace{1cm}}$ 8. $\frac{5}{6} \times \frac{1}{3} = \underline{\hspace{1cm}}$ 9. $1\frac{5}{8} \times \frac{6}{7} = \underline{\hspace{1cm}}$

10. $\frac{3}{4} \times \frac{4}{5} = \underline{\hspace{1cm}}$ 11. $\frac{2}{5} \times 2 = \underline{\hspace{1cm}}$ 12. $2\frac{1}{6} \times \frac{1}{4} = \underline{\hspace{1cm}}$

13. $1\frac{5}{6} \times 2\frac{6}{7} = \underline{\hspace{1cm}}$ 14. $3\frac{3}{4} \times 4 = \underline{\hspace{1cm}}$ 15. $4\frac{2}{5} \times 2\frac{2}{3} = \underline{\hspace{1cm}}$

16. Marcie ran $\frac{3}{4}$ of a mile during track practice. Mel ran $\frac{8}{9}$ as far as Marcie ran. How far did Mel run? _____

Name _____

Review
14

Problem Solving: Strategies

A computer store has 25 printers and computers.
There are 7 more printers than computers.
How many of each are there?

	Printers	Computers	Check
Guess 1	20	5	$20 - 5 = 1$
Guess 2	14	11	$14 - 11 = 3$
Guess 3	16	9	$16 - 9 = 7$ ✓

Solution: There are 16 printers and 9 computers.

Problem Solving Strategies

- Act It Out
- Draw a Picture
- Look For a Pattern
- **Try, Check, and Revise**
- Make an Organized List
- Make a Table
- Solve a Simpler Problem
- Work Backward

Use any strategy to solve.

1. At the veterinarian's office, Terri learned that her dog weighed 4 times as much as her cat. Together the pets weighed 40 lbs. How much did the dog weigh?

2. Yasmin arrived home from play practice at 4:25 P.M. The walk home took 15 minutes. Practice began 20 minutes after the final bell and lasted for a half hour. When did school end?

3. Vanessa, Diego, Rose and Randy stood in line for lunch. Rose was just behind Vanessa. Diego was not next to Rose or Randy. Write the line order. _____
4. Students played dodge ball and volleyball for 45 minutes. They played dodge ball for 11 more minutes than they played volleyball. How long did they play dodge ball?

5. Mr. Jones has 4 shirts, 2 ties, and 3 pair of pants. How many days in a row can he wear a different outfit?

