Summer Math Assignment for Rising 6th Graders

The following Math worksheets are required for rising 6th graders who will be taking Pre-Algebra and are recommended for all other 6th graders.

Practice 2

1 Rami recorded the number of miles he biked each month in a table.

Which statements are correct? Select **all** that apply.

A. Rami biked 109.53 miles in May and June.

B. Rami biked 9.56 miles more in August than in July.

C. Rami biked 116.33 miles in May and August.

D. Rami biked 114.4 miles in June and August.

E. Rami biked 4.69 miles more in May than in July.

F. Rami biked 3.04 miles more in June than in July.

Month	Distance Biked (in miles)
May	55.73
June	54.8
July	51.04
August	60.6

2 It is Luna's goal to jog 27.5 kilometers this week. She jogged 5.75 kilometers on Sunday and 3.5 kilometers on Monday. How many more kilometers does she need to jog to reach her goal this week?

A. 9.25 kilometers

B. 18.25 kilometers

C. 21.75 kilometers

D. 36.75 kilometers

3 A cashier received $20 for each item.

Item	Cost
Binder	$12.76
Box of Pencils	$8.24
Markers	$11.53
Padded Envelopes	$15.97

Did the cashier give the correct change for each item? Select the circles in the table to tell Yes or No.

Amount of Change	Box of Pencils: $11.86	Binder: $7.24	Padded Envelopes: $4.03	Markers: $9.57
Yes	○	○	○	○
No	○	○	○	○

4. Write the sum or difference for each addition or subtraction problem in the table.

Problem	Sum or Difference
4.78 + 2.7	
8.3 + 2.83	
7.9 − 4.26	
8.25 − 4.5	

5. An opossum sleeps 18 hours each day and a cow sleeps 3.9 hours each day. How many more hours does the opossum sleep than the cow?

_____ hours

6. The breakfast specials for today at Dan's Diner are shown.

Item	Cost
Egg Sandwich	$2.79
French Toast	$9.75
Pancakes	$7.50

Part A What is the total cost for all three items? Show your work.

Part B If someone bought one order of pancakes and one egg sandwich and paid with a $20 bill, how much change would that person receive? Use words, numbers, or a model to justify your answer.

1 What is the product of 2.4 × 0.6?

    A. 0.144

    B. 1.44

    C. 14.4

    D. 144

2 Mr. Fraioli bought 12 ounces of smoked salmon for $1.49 per ounce. How much did Mr. Fraioli spend?

    A. $16.78

    B. $16.88

    C. $17.78

    D. $17.88

3 Find the product.

    0.72 × 1.6

    A. 0.494

    B. 1.142

    C. 1.152

    D. 4.932

4 What is the product of 0.13 × 0.4?

    A. 0.052

    B. 0.52

    C. 5.2

    D. 52

5 Each lap around a walking trail is 2.4 kilometers. Angela and José walked 2.75 laps before leaving the trail. What was the distance that they walked on the trail?

    A. 6.38 kilometers

    B. 6.5 kilometers

    C. 6.58 kilometers

    D. 6.6 kilometers

6 Find the product.

    0.27 × 0.06

    A. 0.0122

    B. 0.0162

    C. 0.122

    D. 0.162

7 Which multiplication problems have a product of 0.96? Select **two** that apply.

    A. 0.03 × 32

    B. 0.16 × 0.06

    C. 0.2 × 4.8

    D. 0.4 × 0.24

    E. 8 × 1.2

8 A skateboard that normally costs $72.80 is on sale for 0.75 of the cost. How much will a customer pay for the skateboard?

A. $5.30

B. $5.46

C. $52.96

D. $54.60
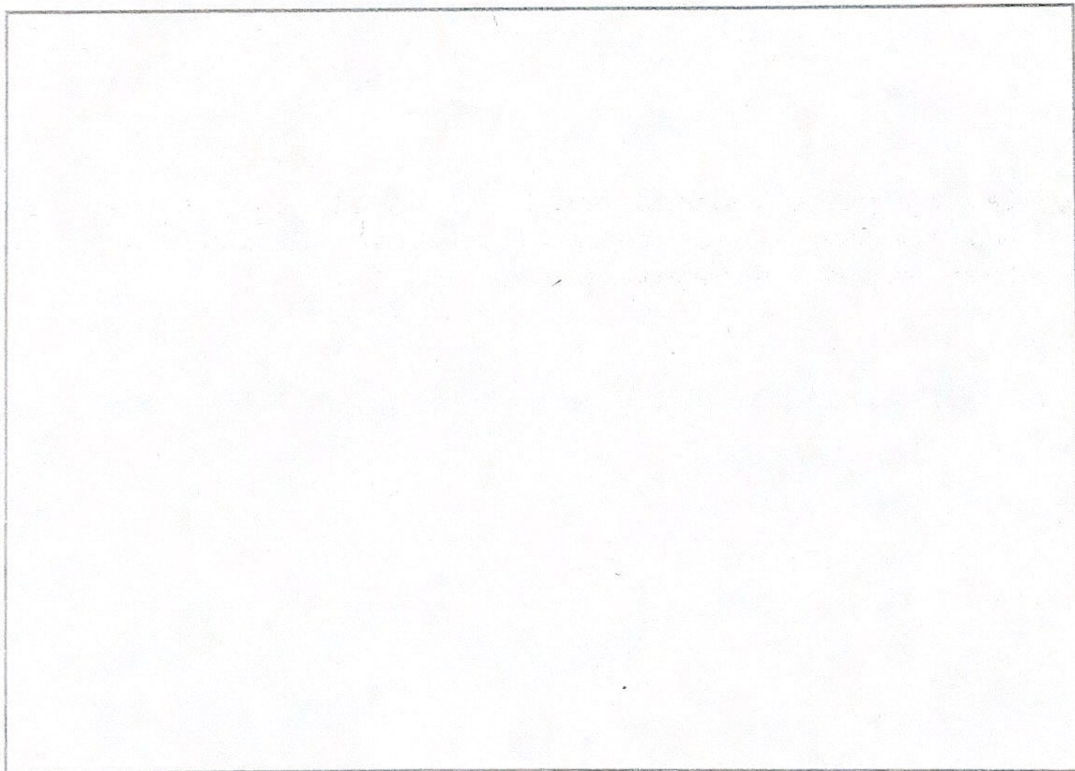
9 Each day in July, Deidre jogged 5.8 kilometers. How many kilometers did Deidre jog in July? Hint: July has 31 days.

A. 159.8 kilometers

B. 160.8 kilometers

C. 179.8 kilometers

D. 180.8 kilometers

10 On a trip to Canada, Roger exchanged $325 for Canadian dollars. If he received 1.30 Canadian dollars for each U.S. dollar, how many Canadian dollars did Roger receive?

_____ Canadian dollars

11 Aubree walked on the treadmill at a speed of 3.6 miles per hour for 0.55 hour. How many miles did Aubree walk? Show your work. Does the product have to have 3 decimal places? Explain your answer.

Practice 1

1 What is the quotient of 37.1 ÷ 7?

    A. 5.03

    B. 5.3

    C. 50.3

    D. 53

2 What is the quotient of 9.88 ÷ 2.6?

    A. 0.38

    B. 3.8

    C. 38

    D. 380

3 Which step is needed before dividing 4.72 ÷ 0.8?

    A. Multiply the divisor by 10.

    B. Multiply the divisor by 100.

    C. Multiply the dividend and the divisor by 10.

    D. Multiply the dividend and the divisor by 100.

4 Which division problem is equivalent to 24.3 ÷ 0.05?

    A. 243 ÷ 50

    B. 243 ÷ 5

    C. 2,430 ÷ 50

    D. 2,430 ÷ 5

5 Serenity spent $13.68 to buy as many pencils as she could. Each pencil cost $0.76. How many pencils did she buy?

    A. 18

    B. 19

    C. 180

    D. 181

6 Ellie and two friends spent $17.76 on lunch. Each person paid the same amount. How much did each person spend?

    A. $5.22

    B. $5.92

    C. $8.33

    D. $8.88

7 Which division problems have a quotient of 2.4? Select **three** that apply.

    A. 7.68 ÷ 3.2

    B. 9.84 ÷ 41

    C. 10.56 ÷ 0.44

    D. 21.36 ÷ 8.9

    E. 38.4 ÷ 16

8 Cooper jogged 2.48 miles at an average speed of 6.2 miles per hour. How long did Cooper jog?

A. 0.4 hour

B. 2.5 hours

C. 3.72 hours

D. 15.376 hours

9 Vince worked 7.5 hours at his mother's office. He was paid $94.50 for his work. How much money did Vince earn per hour?

A. $11.27   C. $12.60

B. $12.00   D. $12.87

10 Find the quotient of $294.4 \div 6.4$.

_____

11 Marisa counted $2.75 in nickels in her change purse. How many nickels does she have? Explain the steps you used to determine your answer.

1. Which problems have a sum or difference of $\frac{7}{12}$? Select **all** that apply.

   A. $\frac{3}{4} + \frac{1}{6}$

   B. $\frac{3}{4} - \frac{1}{6}$

   C. $\frac{1}{3} + \frac{1}{4}$

   D. $\frac{1}{4} + \frac{1}{6} + \frac{1}{12}$

   E. $\frac{2}{3} - \frac{1}{12}$

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

2. The table shows the number of miles Melissa ran on each of three days.

Day	Friday	Saturday	Sunday
Distance (in miles)	$1\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{2}{3}$

   What is the total number of miles Melissa ran?

   _____ miles

3. For each number in the table, select the circles in the table for each expression that can be solved using the number as a common denominator. You may select more than one expression for each number.

Common Denominator	$\frac{1}{8} + \frac{1}{3}$	$\frac{5}{6} - \frac{1}{9}$	$1\frac{3}{5} - \frac{3}{4}$	$2\frac{1}{3} + 1\frac{2}{9}$	$4\frac{1}{4} - 2\frac{1}{6}$
9	○	○	○	○	○
12	○	○	○	○	○
18	○	○	○	○	○
20	○	○	○	○	○
24	○	○	○	○	○

4 Compare the sum or difference of each expression to 1. Write the problem in the correct box.

$1\frac{5}{6} - \frac{5}{12}$ $1\frac{1}{10} - \frac{1}{5}$ $1\frac{3}{6} - \frac{3}{4}$ $\frac{9}{10} + \frac{1}{5}$ $\frac{7}{9} + \frac{1}{4}$ $\frac{4}{7} + \frac{1}{3}$

Less than 1	Greater than 1

5 Marco bought some cherries. He ate $\frac{5}{6}$ pound and saved $1\frac{3}{8}$ pounds for baking. He gave the rest of the cherries to Javier.

Part A How many pounds of cherries did Marco eat and save for baking? Show your work.

Part B Marco gave Javier $2\frac{1}{2}$ pounds of cherries. How many pounds of cherries did Marco buy in all? Show your work. Then explain how you can check your answer.

1 Mrs. Grant uses these ingredients to make clay.

- $1\frac{2}{3}$ cups flour
- $6\frac{3}{4}$ teaspoons oil
- $1\frac{1}{4}$ cups water
- $\frac{3}{4}$ cup salt
- $4\frac{1}{2}$ teaspoons food coloring

Mrs. Grant wants to make 6 batches of clay. Which ingredients will she measure in whole numbers? Select **all** that apply.

A. flour

B. oil

C. water

D. salt

E. food coloring

2 The lengths of the garter snake, green snake, and rat snake at a park's nature center are given in the table.

- The center's copperhead snake is $2\frac{1}{2}$ times the length of its green snake.
- The center's rattlesnake is $\frac{5}{8}$ the length of its rat snake.
- The center's water snake is $1\frac{3}{4}$ times the length of its garter snake.

Complete the table to show the lengths of the copperhead, rattlesnake, and water snake.

Snake	Length (in feet)
Garter Snake	$1\frac{3}{4}$
Green Snake	$1\frac{1}{6}$
Rat Snake	$5\frac{1}{3}$
Copperhead	
Rattlesnake	
Water Snake	

3 A rectangular dog bed is $2\frac{1}{4}$ feet wide. The length of the dog bed is $1\frac{1}{2}$ times as long as its width. What is the area of the dog bed? Explain your reasoning.

4 For a party, Sheila is making sandwiches that are $1\frac{3}{4}$ feet long. She buys $\frac{7}{8}$ pound of ham and $1\frac{3}{8}$ pounds of turkey for the sandwiches. Then she puts $\frac{1}{6}$ of the meat on each sandwich. How many pounds of meat are on each sandwich?

$\boxed{} \over \boxed{}$ pound(s)

5 Two plans are presented for a new town park.

- Plan A proposes an $11\frac{1}{4}$-acre park with $\frac{2}{3}$ of the area for sports fields and the rest for a playground.
- Plan B proposes a $9\frac{3}{4}$-acre park with $\frac{5}{8}$ of the area for sports fields, $\frac{1}{8}$ for a picnic area, and the rest for a playground.

Part A How many acres is the area for the sports fields in Plan B? Show your work.

Part B Which plan would a person who enjoys playing team sports most likely prefer? Explain your reasoning.

1   A store sells $\frac{1}{4}$ pound of cashews for \$2. Which statement is true?

A. The equation $\frac{1}{4} \div 2 = ?$ can be used to find the cost of $\frac{1}{2}$ pound of cashews.

B. The equation $2 \div \frac{1}{4} = ?$ can be used to find the cost of $\frac{1}{2}$ pound of cashews.

C. The equation $\frac{1}{4} \div 2 = ?$ can be used to find how many pounds of cashews can be bought for \$1.

D. The equation $2 \div \frac{1}{4} = ?$ can be used to find how many pounds of cashews can be bought for \$1.

2   Maddie correctly solved the problem below. Which shows a step Maddie could have taken? Select **all** that apply.

For a party, Elias makes $2\frac{1}{2}$ cups of chicken salad and $3\frac{1}{2}$ cups of turkey salad. He puts $\frac{1}{4}$ cup of salad on each sandwich he makes. How many sandwiches can Elias make?

A. Add $2\frac{1}{2}$ and $3\frac{1}{2}$.

B. Subtract $2\frac{1}{2}$ from $3\frac{1}{2}$.

C. Multiply the sum of $2\frac{1}{2}$ and $3\frac{1}{2}$ by $\frac{1}{4}$.

D. Divide $\frac{1}{4}$ by the difference of $2\frac{1}{2}$ and $3\frac{1}{2}$.

E. Divide the sum of $2\frac{1}{2}$ and $3\frac{1}{2}$ by $\frac{1}{4}$.

3   A recipe for 2 dozen rolls calls for $\frac{1}{2}$ cup of shortening. How much shortening is needed to make 1 dozen rolls? Show your work.

4 The amount of cereal that makes one serving is different for different brands. Ms. Ching wants to buy a box of cereal that has 7 or more servings. Sort the boxes of cereal according to the number of servings. Write the letter of each brand in the correct box.

Brand	Amount of Cereal in Box	Serving Size
Brand A	6 cups	1 serving = $\frac{1}{3}$ cup
Brand B	4 cups	1 serving = $\frac{1}{4}$ cup
Brand C	3 cups	1 serving = $\frac{1}{2}$ cup
Brand D	2 cups	1 serving = $\frac{1}{3}$ cup
Brand E	5 cups	1 serving = $\frac{1}{2}$ cup

Less than 7 Servings	7 or More Servings

5 The students in an art class are stringing beads to make necklaces. They do not leave any gaps between beads, stringing them along the entire length of the necklace.

- Lola made a necklace 16 inches long. She used beads that are $\frac{1}{8}$ inch wide.
- Edgar used $\frac{1}{2}$-inch wide beads. He made a 22-inch necklace.

Part A How many more beads did Lola use than Edgar? Show your work.

Part B Edgar decides to make another necklace that is the same length as his first necklace. He uses $\frac{1}{6}$-inch wide beads for his second necklace. Will he use more or fewer beads than he did with his first necklace? Show your work and explain how you know.