5th Grade Summer Math Packet

Dear Parents, Student Packet

I am giving your child a summer math packet to help your student work on math skills over the summer. This is required and will be collected in the fall by the sixth grade math teacher. I encourage you to have your child work on the problems at their own pace. They should then correct any good mistakes with you. I have included an answer key for you to help guide their learning.

Thank you,
Lisa Petryszyn

WRITING EXPRESSIONS

Write an expression to represent each verbal phrase.

Subtract 9 and 2, then multiply by 4.	Divide 8 by 2 and then add 1.	Triple 4 and then add 6.
Add 2 and 8 and then multiply by 2.	Double 6 and then divide by 3.	Add 4, 6 and 13.
Subtract 9 and 2 and add 5.	4 plus the product of 2 and 7.	The sum of 6 times 5 and 9 minus 2.
8 less than the quotient of 20 and 5.	The product of 4 and triple the number 2.	Multiply 5 and 7 and then divide by 5.
The difference of four times four and six.	4 more than the difference of 10 and 2.	20 divided by the product of 2 and 4.

DESCRIBING PATTERNS

Describe the pattern in each table.

lbs.	Total Cost ($)
0	0
1	3
2	6
3	9

Day	# of Guests
1	100
2	200
3	300
4	400

Day	Cupcakes Sold
0	0
1	2
2	4
3	6

lbs.	Total Cost ($)
0	0
2	3
4	6
6	9

Day	Tickets Sold
1	30
2	60
3	90
4	120

Boxes	Cost ($)
0	0
2	10
4	20
6	30

Day	Cookies Made
0	0
3	30
6	60
9	90

Bags	Total Cost ($)
1	5
2	10
3	15
4	20

Kids	Total Spent ($)
10	20
20	40
30	60
40	80

Kids	Teachers
5	1
10	2
15	3
20	4

lbs.	Total Cost ($)
0	0
4	2
8	4
12	6

Day	Number Sold
0	0
5	40
10	80
15	120

POWERS OF TEN

What is the relationship between the exponent in $4.3 \cdot 10^3$ and 4,300?	What is the relationship between the exponent in $8.2 \div 10^2$ and 0.082?	What is the relationship between the exponent in $5 \cdot 10^6$ and 5,000,000?
Complete the pattern: $4.2 \cdot 10 = 4.2 \cdot 10^{\square} =$ _____ $4.2 \cdot 10 \cdot 10 = 4.2 \cdot 10^{\square} =$ _____ $4.2 \cdot 10 \cdot 10 \cdot 10 = 4.2 \cdot 10^{\square} =$ _____		Is the multiplication sentence below true? Explain. $5.3 \cdot 10^4 = 530{,}000$
If $6 \cdot 3 = 18$, then $600 \cdot 3 = ?$	$53.2 \cdot$ _____ $= 532{,}000$	If $400 \cdot 5 = 2{,}000$, then $400 \cdot 500 = ?$
Solve: $7.95 \cdot 10^3$	Solve: $6{,}000{,}000 \div 10^3$	Solve: $4.02 \cdot 10^2$
Solve: $7.95 \div 10^3$	Solve: $6{,}000{,}000 \cdot 10^3$	If $4 \cdot 2 = 2{,}000$, then $2{,}000 \cdot 40 = ?$

EXPANDED FORM

Write the number below in expanded form using fractions. 5,482	Write the number below in expanded form using fractions. 38.25	Write the number below in expanded form using fractions. 4.082
Write in numeric form. "Fifteen and two hundredths"	Write in numeric form. $(8 \cdot 10) + (4 \cdot 1) + (5 \cdot \frac{1}{100})$	Write in numeric form. $(5 \cdot 100) + (2 \cdot \frac{1}{10})$
Write the number below in expanded form. 800.124	Write in numeric form. "Four thousand three hundred one"	Write in numeric form. "Nine and two tenths"
Write a number equivalent to 0.7.	Write a number equivalent to 0.4050.	Write a number equivalent to 6.203.
Write the number below in expanded form using fractions. 250.6	Write the number below in expanded form using fractions. 0.046	Write a number equivalent to 400.39.

ROUNDING DECIMALS

Round 15.435 to the nearest tenth.	Round 567.065 to the nearest hundredth.	Round 874.32 to the nearest ten.
Round 4.623 to the nearest whole number.	Round 0.7845 to the nearest hundredth.	Round 71.963 to the nearest tenth.
Round 6.8245 to the nearest tenth.	Round 182.675 to the nearest hundred.	Round 42.96 to the nearest ten.
Round 18.096 to the nearest whole number.	Round 14.6734 to the nearest hundredth.	Round 28.946 to the nearest tenth.
Round 104.642 to the nearest tenth.	Round 13.811 to the nearest whole number.	Round 23.462 to the nearest hundredth.

MULTI-DIGIT DIVISION

Find each quotient.

186 ÷ 62	525 ÷ 15	896 ÷ 14
288 ÷ 32	688 ÷ 86	156 ÷ 12
1,232 ÷ 14	540 ÷ 20	720 ÷ 48

A bag of candy contains 24 pieces. How many bags are needed for a school of 864 students if each student receives one piece?

Construction paper comes 16 sheets per pack. How many packs need to be purchase in order to get 224 pieces?

A theater has rows of 32 seats. How many rows are needed if 960 people attend a performance at the theater?

SUBTRACTING DECIMALS

Find each difference.

15.2 – 6.25	9.35 – 0.6	10.362 – 1.2	30.5 – 3.23
12.9 – 8.2	8 – 0.25	15.5 – 3	16.32 – 8.1

Your lunch bill is $13.14. A friend pays $6.99. How much is left to pay?

You cut a 2.675 foot section from an 8.9 foot piece of wood. How much is left?

Ryan bought 5.67 pounds of candy and ate 2.9 pounds. How much is left?

Travis has a $20 gift card. He spent $9.62 and then another $2.49. How much is left on the gift card?

DIVIDING DECIMALS

Find each quotient.

13.2 ÷ 6	9.4 ÷ 2	8.3 ÷ 5	29.2 ÷ 4
25.2 ÷ 5	6.4 ÷ 8	10.35 ÷ 9	30.4 ÷ 8

A 32.34 inch piece of ribbon is cut into 6 pieces. How long is each piece?

A 14.24 pound bag of cheese is split among 5 pizzas. How much chees is on each pizza?

An 8.2 pound bag of candy is shared equally among 10 teachers. How much candy did each teacher get?

A 6.5 foot long piece of wood is cut into 5 sections. How long is each section?

MULTIPLYING FRACTIONS

Find each product.

$\frac{2}{5} \cdot \frac{7}{10}$	$\frac{2}{3} \cdot 8$	$\frac{5}{6} \cdot \frac{1}{2}$	$10 \cdot \frac{4}{5}$
$3\frac{1}{2} \cdot 4$	$6\frac{1}{8} \cdot 2\frac{1}{2}$	$4\frac{2}{3} \cdot 6\frac{1}{4}$	$5\frac{1}{2} \cdot 5\frac{1}{2}$
$8\frac{1}{3} \cdot 2\frac{1}{4}$	$3\frac{3}{5} \cdot 6\frac{1}{5}$	$9\frac{1}{2} \cdot 1\frac{7}{10}$	$8 \cdot 2\frac{1}{2}$

You ran $4\frac{1}{2}$ times around a $2\frac{1}{4}$ mile track. How far did you run?

You car drove $5\frac{3}{5}$ times around a $2\frac{1}{8}$ mile track. How far did the car travel?

DIVIDING FRACTIONS

Find each quotient.

$\frac{2}{5} \div 8$	$\frac{5}{6} \div 4$	$\frac{7}{8} \div 2$	$\frac{9}{10} \div 4$
$3\frac{1}{2} \div 5$	$6\frac{1}{5} \div 2$	$9\frac{1}{3} \div 3$	$5\frac{2}{5} \div 2$

You split $8\frac{1}{2}$ pounds of strawberries equally among 5 containers. How many pounds of strawberries are in each container?

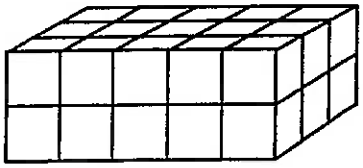
A $12\frac{1}{5}$ inch long piece of ribbon is cut into 4 pieces. How long is each piece?

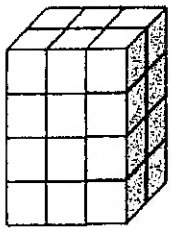
A $4\frac{9}{10}$ foot long piece of wood is cut into 6 sections. How long is each section?

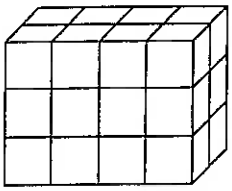
A $12\frac{2}{3}$ pound bag of chocolate is split equally among 20 boxes. How much chocolate is in each box?

VOLUME

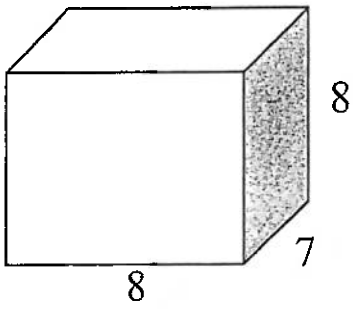
Find the volume of each shape.



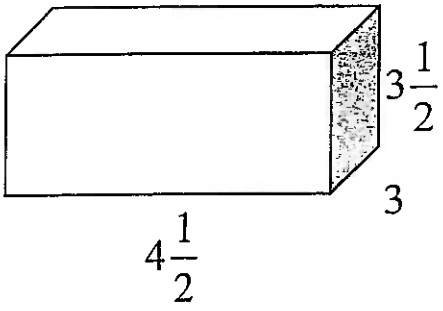




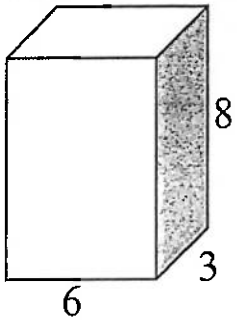
Feet



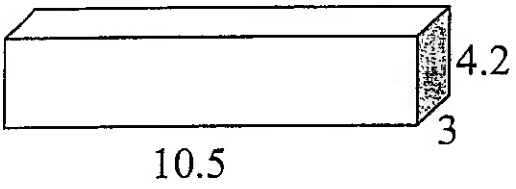
Inches



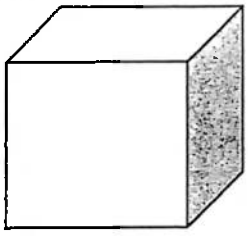
Feet



Centimeters



Inches



MEASUREMENT CONVERSIONS

How many quarts are in 9 gallons?	How many gallons are in 44 quarts?	How many cups are in 6 pints?
How many feet are in 3.5 yards?	How many centimeters are in 5 ½ meters?	How many quarts are in 2.5 gallons?
How many pints are in 4 quarts?	How many inches are in 2 ¾ yards?	How many centimeters are in 3 ½ meters?
How many meters are in 450 centimeters?	How many yards are in 38 inches?	How many gallons are in 10 quarts?
How many pints are in 4 gallons?	How many pints are in 40 ounces?	How many feet are in 2.4 yards?

LINE PLOTS

For questions 1 – 2, create a line plot using the given information.

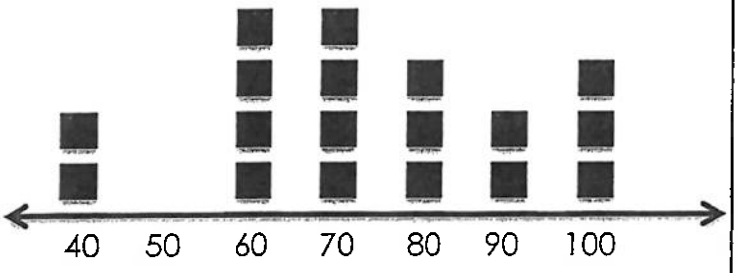
1. The ages of kids in an art club:

6, 8, 9, 8, 7, 10, 8, 9, 7, 7, 6, 9, 10, 10, 8, 8

2. The height of flowers in a garden:

12, 16, 17, 15, 16, 14, 15, 16, 17, 14, 14, 16, 19, 12, 14, 17

Use the line plot below to answer questions 3 – 5.



3. The line plot shows test scores for a 10 question quiz. How many students scored higher than 70%?

4. How many students got a perfect score?

5. How many students scored 60% or lower?