Summer Math 2024

Dear Parents:
We are so proud of the students in accelerated/honors math classes this year. We look forward to having them in class next year! In order to maintain academic success, they must continue to learn, practice, and review, even over the summer. By taking time to review and practice essential math skills over the summer, students will create more opportunities to find success the following year, while preventing summer learning loss. Every student will need to complete the summer math packet. This packet is due on the first day of school and will be counted as the first grade of the 1st trimester.
Enjoy the Summer!

Thanks,

Mrs. Koch and Mrs. Bauer

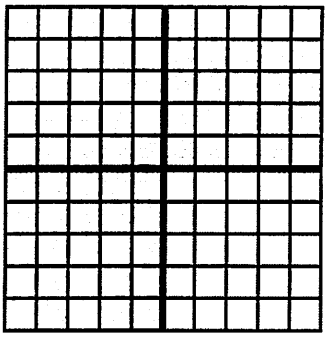
5th into 6th
Summer Packet

Name _____

Date _____

This section contains 30 multiple-choice questions. Work each problem in the space on this page. Select the best answer. Write the letter of the answer on the blank at the right.

1 What decimal is equivalent to $\frac{3}{4}$? **1** _____



A 0.25

B 0.34

C 0.75

D 1.33

2 Find the product of 6.1 and 4.9. **2** _____

F 7.93

G 11.0

H 29.89

J 30.79

3 Look at the table below. Which of the following has NOT been rounded correctly to the nearest hundred? 3 _____

Population in 2005		
City	Exact Population	Estimated Population
Austin	690,252	690,300
Chicago	3,844,829	3,844,800
Seattle	557,087	557,100
St. Louis	912,332	912,330

Source: U.S. Census Bureau

A Chicago
B Austin
C Seattle
D St. Louis

4 The number 13.76 is read as which of the following: 4 _____

F thirteen and seventy-six tenths
G thirteen and seventy-six hundredths
H thirteen and seventy-six thousandths
J thirteen thousand and seventy-six

5 Raven is asked to check the answer to the multiplication problem below. Which number sentence could she use to check her answer? 5 _____

$$23 \times 452 = 10{,}396$$

A $23 + 452 = 475$
B $452 - 23 = 429$
C $10{,}396 \times 23 = 452$
D $10{,}396 \div 23 = 452$

6 How can you write 10,000,000 using exponents? **6** _____

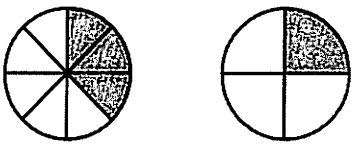
F 10^4

G 10^5

H 10^6

J 10^7

7 Inali ate $\frac{3}{8}$ of a pizza. His friend ate $\frac{1}{4}$ of the pizza. How much did they eat all together. **7** _____



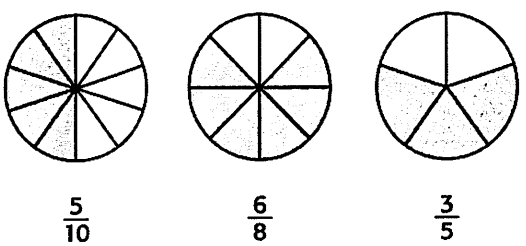
A $\frac{1}{3}$

B $\frac{1}{2}$

C $\frac{5}{8}$

D $\frac{3}{4}$

8 Josh, Avi, and Charlotte each sold slices of pie at the bake sale. The figures below show how they each cut their pie. The shaded parts represent the pieces they sold. What can you conclude from the data? **8** _____



F Josh and Avi sold $1\frac{1}{4}$ pies.

G Avi and Charlotte sold $1\frac{1}{2}$ pies.

H Avi and Charlotte each sold the same amount of pie.

J Charlotte and Josh sold $1\frac{3}{10}$ pies.

9 Sasha's mom bought a container with 150 bracelet beads for Sasha's birthday party. There were 8 girls at the birthday party to equally share the beads. Between what two amounts of beads should each girl receive?

9 _____

A between 15 and 16
B between 16 and 17
C between 17 and 18
D between 18 and 19

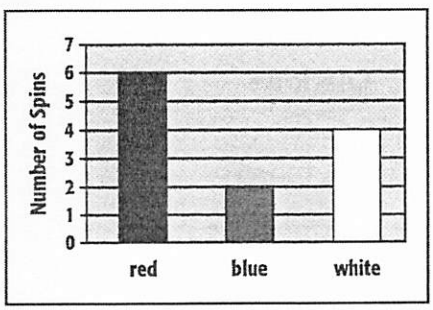
10 Which of the following expressions is equal to $\frac{4}{5} \times 7$?

10 _____

F $4 \div 5 + 7$
G $4 \times 7 \div 5$
H $4 \times 7 \times 5$
J $5 \div 4 \times 7$

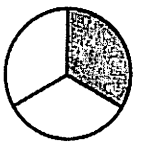
11 Adam spins a spinner 12 times. The results are shown in the bar graph below. Which fraction of the spins were red or blue?

11 _____



A $\frac{2}{3}$
B $\frac{3}{4}$
C $\frac{7}{12}$
D $\frac{5}{6}$

12 A salsa recipe calls for $\frac{1}{3}$ cup of onions. William wants to multiply the recipe by 4. How many cups of onion will he need? **12** _____



F $\frac{3}{4}$ cup

G 1 cup

H $1\frac{1}{3}$ cups

J $1\frac{2}{3}$ cups

13 The menu below shows the prices at Lunchtime Café. Lucita orders a turkey sandwich and two fruit cups. What expression should she use to determine the cost of her meal? **13** _____

Lunchtime Cafe	
Item	**Cost**
Turkey Sandwich	$4.50
Ham Sandwich	$4.35
Salad	$2.10
Fruit Cup	$2.50
Juice	$1.90

A $4.50 + (2 \times 2.50)$

B $4.50 + 2.50$

C $2.50 + (2 \times 4.50)$

D 2.50×4.50

14 Each student in fifth grade donates 4 cans of food to the food bank. There are 285 fifth-grade students. Which of the following shows the number of cans donated and the correct justification for the number? **14** _____

F 71 because 285 divided by 4 is approximately 71

G 289 because 285 plus 4 is 289

H 1,120 because 280 times 4 is 1,120

J 1,140 because 285 times 4 is 1,140

15 Mr. Izquierdo is joining a gym. There is a $150 registration fee and a monthly fee of $28. Which expression shows the total cost for Mr. Izquierdo to join the gym for a year? **15** _____

A ($150 + $28) × 12
B $150 × ($28 + 12)
C ($150 × 12) + $28
D $150 + ($28 × 12)

16 Each week, Melanie saves the same amount of money. After the third week, she has $30. After the fifth week, she has $50. After the seventh week, she has $70. Which operation could Melanie use to determine the amount she will have saved by the tenth week? **16** _____

F Add 10 to the number of weeks.
G Add 20 to the numbers of weeks.
H Multiply 10 times the number of weeks.
J Multiply 20 times the number of weeks.

17 Carmen created the following table of multiplication facts for 100. If the pattern continues, what is 100 × 12? **17** _____

#	× 100
1	100
2	200
3	300
4	400
5	500

A 120 **B** 210 **C** 1,200 **D** 2,100

18 Bennett created the table below. Which operation did he perform on the numbers in the left column to find the numbers in the right column?

18 _____

x	*y*
1	9
2	10
3	11
4	12
5	13
6	14

F Add 8.
G Add 9.
H Multiply by 8.
J Multiply by 9.

19 Martin notices that certain pickup trucks have 6 wheels. Which table could he use to determine the number of wheels on five of these pickup trucks?

19 _____

A

Trucks	1	2	3	4	5
Wheels	4	8	12	16	20

B

Trucks	1	2	3	4	5
Wheels	6	12	18	24	30

C

Trucks	1	2	3	4	5
Wheels	4	16	64	256	1024

D

Trucks	1	2	3	4	5
Wheels	6	36	216	1296	7776

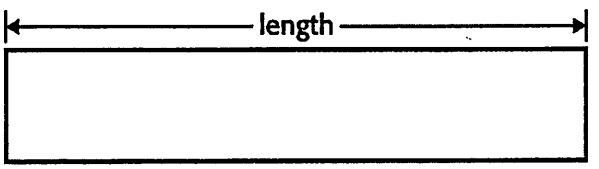
20 Tamera is 4 years younger than her brother. Which expresssion could you use to determine Tamera's age, given her brother's age b?

20 _____

F $b + 4$
G $b - 4$
H $b \times 4$
J $b \div 4$

21 Use a ruler to measure the length of the rectangle below in centimeters. Convert this length to meters.

21 _____



A 8 m
B 0.8 m
C 0.08 m
D 0.008 m

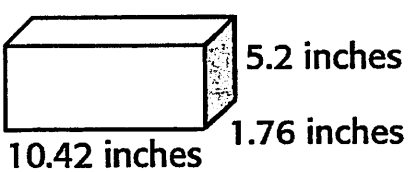
22 There are 12 inches in 1 foot, and there are 3 feet in 1 yard. How many inches are there in 1 yard?

22 _____

F 12
G 24
H 36
J 48

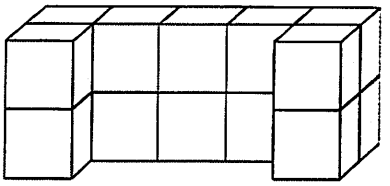
23 Megan wants to estimate the volume of the box shown below. Which is the best estimate? ($V = \ell \times w \times h$)

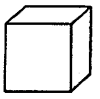
23 _____



A 50 in^3
B 60 in^3
C 100 in^3
D 110 in^3

24 What is the volume of the figure? **24** _____





= 1 cubic unit

F 10 cubic units
G 12 cubic units
H 14 cubic units
J 16 cubic units

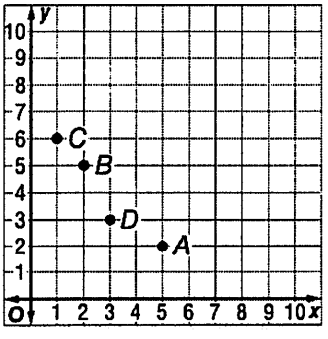
25 Which of the following is equal to 4 gallons? **25** _____

A 1 quart
B 8 quarts
C 12 quarts
D 16 quarts

26 A rectangular shoebox is 14 inches long by 8 inches wide by 6 inches tall. What is the volume of the shoebox? **26** _____

F 28 cubic inches
G 668 cubic inches
H 480 cubic inches
J 672 cubic inches

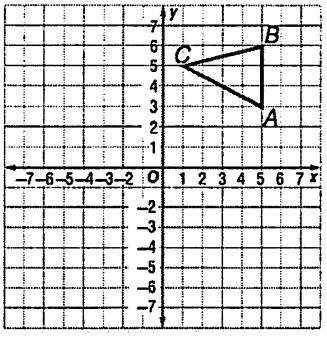
27 Look at the coordinate grid below. Which point is located at (2, 5)? **27** _____



A Point *A*
B Point *B*
C Point *C*
D Point *D*

28 On the graph below, $\triangle ABC$ is graphed. What is the x-coordinate of point A?

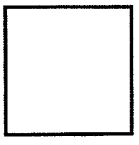
28 _____



F 3
G 4
H 5
J 6

29 Which of the following does not describe the figure below?

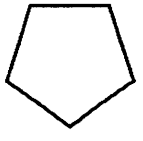
29 _____



A square
B rectangle.
C quadrilateral
D trapezoid

30 Which best describes this figure?

30 _____



F pentagon
G hexagon
H triangle
J octagon

Name _____

Multiplication & Division of Integers

Rules for Multiplying and Dividing Integers

- If both numbers are positive or both numbers are negative, the answer is positive. (0 is not negative or positive.)

  Examples: 8 (4) = 32 $\quad$ $^-8 \div {}^-4 = 2$

- If one number is positive and one number is negative, the answer is negative.

  Examples: 8 ($^-4$) = $^-32$ $\quad$ $^-8 \div 4 = {}^-2$

Solve the multiplication and division problems below.

1. $^-15$ (8) = _____
2. $^-24$ ($^-11$) = _____
3. $^-5$ (20) ($^-7$) = _____
4. $^-8$ ($^-7$) ($^-11$) = _____
5. 12 ($^-6$) (10) = _____
6. 594 ÷ $^-11$ = _____
7. $^-294 \div {}^-7$ = _____
8. $^-144 \div 6$ = _____
9. $322 \div {}^-14$ = _____
10. $^-4248 \div {}^-8$= _____
11. $^-384 \div 4$ = _____
12. $^-13$ (5) ($^-3$) = _____
13. 42 ($^-4$) = _____
14. $^-510 \div 6$ = _____
15. 8 ($^-9$) (6) = _____
16. 22 ($^-47$) = _____
17. $300 \div {}^-12$ = _____
18. $^-245 \div {}^-7$ = _____
19. $^-15$ (70) = _____
20. $^-19$ ($^-2$) = _____
21. $^-405 \div 9$ = _____
22. $195 \div {}^-3$ = _____
23. 12 ($^-2$) ($^-4$) = _____
24. $1000 \div {}^-10$ = _____

Name _____

Addition & Subtraction of Integers

Rules for Adding Integers

1. If the signs are the same, add the numbers and keep the sign.

   Examples: $8 + 4 = 12$

   $^{-}8 + ^{-}4 = ^{-}12$

2. If the signs are different, subtract the absolute values. Use the sign of the number with the greater absolute value for the answer.

   Examples: $^{-}8 + 4 = ^{-}4$

   $8 + ^{-}4 = 4$

Rules for Subtracting Integers

1. Change the subtraction sign to addition.
2. Change the number after the subtraction sign to its opposite.
3. Then follow the addition rules.

Examples: $12 - ^{-}3 = 12 + 3 = 15$

$^{-}12 - 3 = ^{-}12 + ^{-}3 = ^{-}15$

Solve the addition and subtraction problems below.

1. $^{-}49 + 97 =$ _____
2. $^{-}87 + ^{-}29 =$ _____
3. $36 + 12 =$ _____
4. $^{-}46 - ^{-}82 =$ _____
5. $128 - ^{-}128 =$ _____
6. $212 - ^{-}512 =$ _____
7. $14 + ^{-}29 =$ _____
8. $408 - 725 =$ _____
9. $125 - ^{-}92 =$ _____
10. $^{-}288 + 654 =$ _____
11. $^{-}97 + ^{-}18 =$ _____
12. $52 - 14 =$ _____

Solve the problems below. Complete the part in parentheses first.

13. $^{-}92 - (42 - ^{-}10) =$ _____
14. $(^{-}72 - 128) - ^{-}67 =$ _____
15. $(^{-}12 + 28) + ^{-}26 =$ _____
16. $^{-}92 + (42 + ^{-}10) =$ _____
17. $14 + (12 - ^{-}12) =$ _____
18. $36 - (56 + ^{-}72) =$ _____

Name : _____ Score : _____

Teacher : _____ Date : _____

Mean, Mode, Median, and Range

1) 15, 7 , 19, 6 , 8 , 10, 20, 11

Mean ____ Median ____ Mode _____ Range ____

2) 13, 19, 12, 13, 17, 20, 11

Mean ____ Median ____ Mode _____ Range ____

3) 8 , 6 , 17, 10, 19, 14, 7 , 11, 7

Mean ____ Median ____ Mode _____ Range ____

4) 7 , 20, 14, 18, 8 , 12, 11, 13, 11, 6

Mean ____ Median ____ Mode _____ Range ____

5) 20, 11, 9 , 13, 18, 14, 13

Mean ____ Median ____ Mode _____ Range ____

6) 17, 21, 20, 10, 16, 11, 15, 20, 14

Mean ____ Median ____ Mode _____ Range ____

7) 14, 9 , 15, 20, 18, 9 , 6 , 9 , 8

Mean ____ Median ____ Mode _____ Range ____

8) 17, 6 , 14, 20, 12, 15, 17, 19

Mean ____ Median ____ Mode _____ Range ____

9) 18, 13, 15, 11, 15, 15, 8 , 18, 10, 17

Mean ____ Median ____ Mode _____ Range ____

10) 19, 11, 13, 8 , 19, 6 , 19, 19, 11, 18, 11

Mean ____ Median ____ Mode _____ Range ____

Name : _____ Score : _____

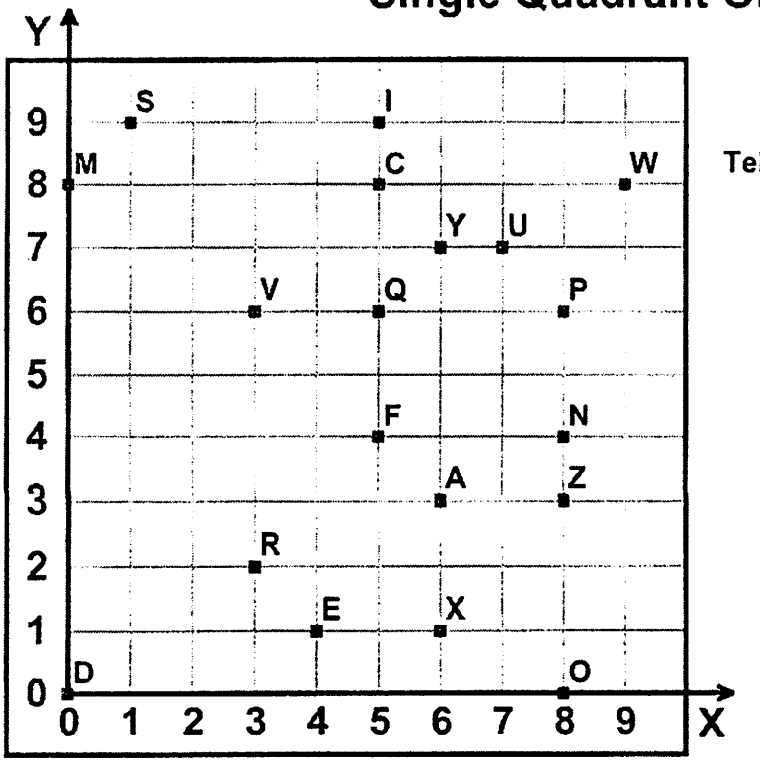
Teacher : _____ Date : _____

820.22 - 375.72	220.31 +769.29	692.63 +685.98	599.19 +658.62	369.66 +852.38
404.42 +915.94	597.12 - 554.35	796.17 +773.74	855.92 - 577.66	876.99 - 198.87
217.93 - 164.89	185.82 +805.32	535.64 +443.31	629.69 +131.26	754.78 - 359.28
913.19 - 771.34	722.94 - 543.83	827.78 +686.49	943.38 - 426.67	940.23 - 336.67

Name : _____ Score : _____

Teacher : _____ Date : _____

Single Quadrant Ordered Pairs



Tell what point is located at each ordered pair.

1) (0,0) _____

2) (5,6) _____

3) (8,6) _____

4) (5,4) _____

5) (3,2) _____

6) (3,6) _____

7) (4,1) _____

8) (7,7) _____

9) (6,3) _____

10) (0,8) _____

Write the ordered pair for each given point.

11) **Z** _____

12) **S** _____

13) **X** _____

14) **I** _____

15) **C** _____

16) **W** _____

17) **N** _____

18) **O** _____

19) **Y** _____

Plot the following points on the coordinate grid.

20) **G** (5,1)

21) **H** (6,4)

22) **K** (1,1)

23) **L** (6,5)

24) **T** (3,3)

25) **B** (9,1)

Name : _____ Score : _____

Teacher : _____ Date : _____

Adding Fractions

1) $\frac{2}{6} + \frac{2}{4} =$

2) $\frac{8}{10} + \frac{4}{15} =$

3) $\frac{6}{9} + \frac{4}{27} =$

4) $\frac{12}{13} + \frac{8}{26} =$

5) $\frac{4}{9} + \frac{11}{27} =$

6) $\frac{12}{26} + \frac{3}{13} =$

7) $\frac{4}{26} + \frac{2}{13} =$

8) $\frac{6}{9} + \frac{1}{3} =$

9) $\frac{1}{6} + \frac{3}{4} =$

10) $\frac{5}{13} + \frac{2}{26} =$

Name : _____ Score : _____

Teacher : _____ Date : _____

Order of Operations

1) (14 + 13 - 3) ÷ 12

2) (13 + 2) + 10 ÷ 2

3) (13 + 2) + 10 ÷ 5

4) (20 + 7) x 11 - 3

5) (10 + 50) ÷ (-2 + 5)

6) 7 x 6 x(4 + 4)

7) (15 - 5) x 14 - 6

8) (14 + 12 - 2) ÷ 3

9) 7 x 8 x(9 - 6)

10) (11 + 37) ÷ (15 - 3)