Department of Education

Middle School 936
The School of Performing & Visual Arts

Donna Nastasi, IA Principal
278 59th Street, Brooklyn, NY 11220

ARTSOFF3RD@GMAIL.COM
www.artsoff3rd.org

Dear Parents and Future 6th Grade Students,

Congratulations on your child's graduation! We at M.S. 936, Arts Off 3RD want all of our students to continue to excel, therefore, it is important for your child to maintain and reinforce the Math skills he/she acquired during the school year.

You will be responsible for handing in a completed assignment in September. The summer work will count as a project grade for the first quarter. Each day work is late 10 points will be deducted from your grade. The problems here are very representative of the type of Math problems you need to have mastered for 6th grade Math.

Solve the following problems without using a calculator and show all work in pencil!!!!!!

Name _____ Class _____

1. For questions 1a–1d, choose Yes or No to tell if the equation is true.

1a. $740 \div 20 = 37$ ○ Yes ○ No

1b. $840 \div 30 = 28$ ○ Yes ○ No

1c. $720 \div 60 = 14$ ○ Yes ○ No

1d. $930 \div 40 = 23$ ○ Yes ○ No

---

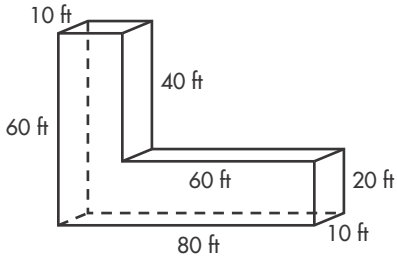
2. Consider the expression $16 - 4 \times 3 + 7$.

2a. Use parentheses to rewrite the expression so that it equals 11.

2b. Use parentheses to rewrite the expression so that it equals 120.

---

3. A building has the dimensions shown.



Write and solve an equation for the total volume of the building.

---

4. Write each expression in the correct answer space to show products less than $3\frac{3}{5}$ and those greater than $3\frac{3}{5}$.

$3\frac{3}{5} \times 1\frac{1}{4}$ $2\frac{5}{8} \times 3\frac{3}{5}$ $3\frac{3}{5} \times \frac{7}{8}$ $\frac{3}{10} \times 3\frac{3}{5}$

Less than $3\frac{3}{5}$	Greater than $3\frac{3}{5}$

---

5. For questions 5a–5d, choose Yes or No to tell if the statements are true.

5a. A square is also a rectangle. ○ Yes ○ No

5b. A trapezoid is also a rectangle. ○ Yes ○ No

5c. A square is also a rhombus. ○ Yes ○ No

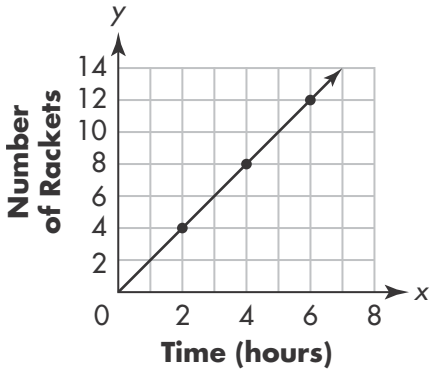
5d. A trapezoid has exactly 1 pair of parallel sides. ○ Yes ○ No

---

6. A 640-oz bag of dog food contains 75 equal portions. Between what two whole numbers of ounces will each portion weigh? Explain using division.

7. A box contains 36 cans of tomato sauce. Each can has a mass of 425 grams. What is the total mass, m, in grams of all the cans? Write and solve an equation for m.

8. Manny works at a tennis shop restringing rackets. The graph shows how many rackets Manny restrung one Saturday.



Part A

How many rackets did Manny restring after 2 hours?

Part B

What does the point (5, 10) represent on the graph?

9. Draw lines to match each expression on the left with the correct product.

91.8×0.01	0.918
918×0.1	9,180
9.18×10^3	918
0.918×10^3	91.80

10. What is the missing decimal in the chart? How can you tell?

0.020	0.021	0.022	0.023	0.024	0.025
0.030	0.031	0.032	0.033	?	0.035
0.040	0.041	0.042	0.043	0.044	0.045

11. On Sunday, the temperature was 64°F. On Monday, the temperature was 3 degrees less than half the temperature on Sunday. Which expression shows how you could find the temperature, in degrees Fahrenheit, on Monday?

Ⓐ $(64-3) \times 2$

Ⓑ $(64-3) \div 2$

Ⓒ $(64 \div 2) - 3$

Ⓓ $(64 \div 2) + 3$

12. Raymond is installing a new kitchen countertop. The countertop is a rectangular piece of quartz that is 5.75 feet long and 2.47 feet wide.

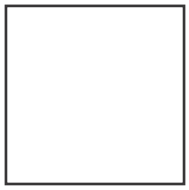
Part A

Round the length and width to the nearest whole number. Then estimate the perimeter of the countertop. Write an equation to model your work.

Part B

Round the length and width to the nearest tenth. Then estimate the perimeter of the countertop. Write an equation to model your work.

13. List all the names that could be used to describe the figure.



14. Which statement tells how to graph the point (4, 7) on a coordinate plane?

Ⓐ From the origin, move 7 units to the right and then move 4 units up.

Ⓑ From the origin, move 4 units to the left and then move 7 units down.

Ⓒ From the origin, move 4 units to the right and then move 7 units up.

Ⓓ From the origin, move 7 units to the left and then move 4 units down.

15. Marlon is making spaghetti sauce. He uses the following ingredients.

Ingredients	Amount for 1 Cup of Sauce
Tomato Paste	$\frac{1}{8}$ cup
Diced Onion	$\frac{1}{2}$ cup
Diced Bell Pepper	$\frac{1}{3}$ cup

Marlon has 1 cup of tomato paste. If he wants to use all of the tomato paste, how many cups of sauce can he make?

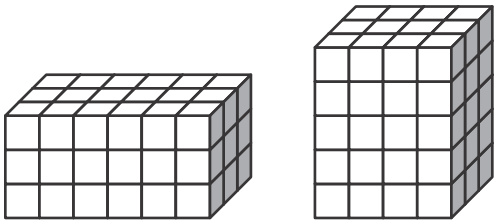
Part A

Write an equation to solve the problem.

Part B

Marlon used all of the tomato paste to make the sauce. How many $\frac{1}{3}$-cup servings of spaghetti sauce did Marlon make?

16. Both of the models are made up of 1-inch cubes. Which statement about these models is true?



Ⓐ Model A has a greater volume than Model B.

Ⓑ Model A and Model B have the same volume.

Ⓒ The volume of Model B is 6 cubic inches greater than the volume of Model A.

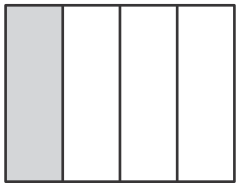
Ⓓ The volume of Model A and Model B combined is 110 cubic inches.

---

17. Purdy has $\frac{1}{4}$ of a bag of flour. She thinks she can make 3 batches of pancakes from the flour left in the bag.

Part A

Complete the diagram to show how she could divide the flour into 3 equal portions.

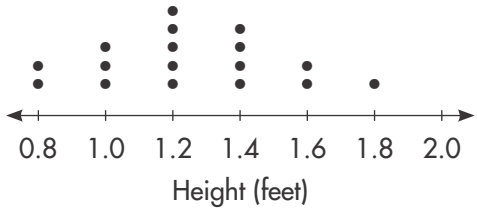


Part B

What fraction of the whole bag does each batch of pancakes require?

---

18. Use the line plot. How many students jumped more than 1 foot and less than 1.6 feet?



Ⓐ 5 Ⓒ 14

Ⓑ 9 Ⓓ 17

---

19. Choose all equations that are true.

☐ $3\frac{1}{3} \times 5 = 16\frac{2}{3}$

☐ $6\frac{1}{5} \times \frac{4}{5} = 4\frac{24}{25}$

☐ $3\frac{1}{4} \times 4\frac{1}{3} = 12\frac{1}{12}$

☐ $2\frac{1}{4} \times 3\frac{3}{5} = 8\frac{1}{10}$

☐ $6\frac{4}{5} \times 2\frac{1}{3} = 15\frac{1}{3}$

---

20. Write $>$, $<$, or $=$ in each circle to make the statements true.

17a. 25.048 ◯ 25.408

17b. 123.050 ◯ 123.005

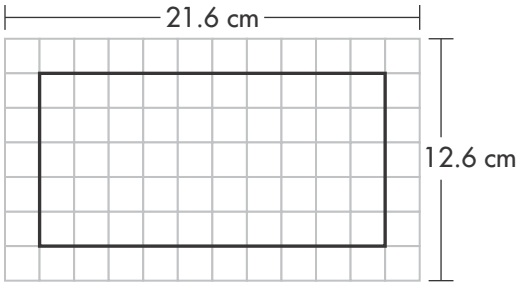
17c. 0.23 ◯ 0.230

17d. 4.208 ◯ 4.308

---

21. Kai bought $3\frac{1}{8}$ pounds of ground beef and $1\frac{3}{4}$ pounds of sausage to make meatballs. He says that he has $1\frac{1}{2}$ pounds more ground beef than sausage. Do you agree? Explain.

22. Emily draws a rectangle on a piece of grid paper. She wants to know the side length of each grid square.



Part A

Describe one way to find the answer.

Part B

What is the side length of one square? Write an equation to show your work.

---

23. Julianne brings one and a half gallons of orange juice to serve at soccer practice. How many 8-ounce servings of orange juice does she bring?

Ⓐ 8

Ⓑ 16

Ⓒ 24

Ⓓ 32

24. Jerred writes a fitness blog. Each week he gets 15 new email subscribers and sells 3 e-books.

Part A

Complete the table to show how many new email subscribers join and e-books Jerred sells after each week. Use the rules "add 15" and "add 3".

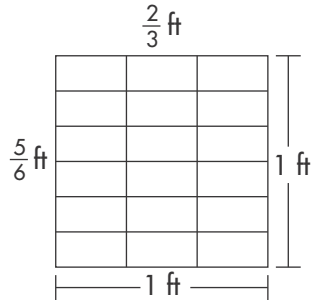
Weeks	New Email Subscribers	e-books Sold
1		
2		
3		
4		
5		

Part B

If the pattern continues, what ordered pair would represent the number of new email subscribers and number of e-books sold at week 6?

---

25. Find the area of a rectangle with side lengths $\frac{5}{6}$ ft and $\frac{2}{3}$ ft. Use the drawing to show your work.



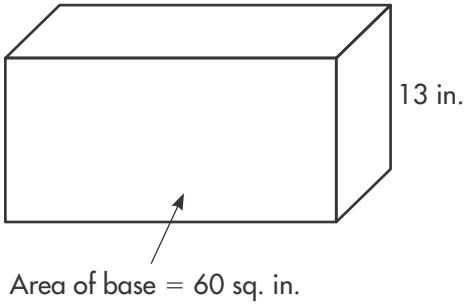
26. Describe the relationship between the value of the digit 4 in the number 4,321 and in the value of the digit 4 in the number 3,421.

27. Write numbers in the boxes to make each equation true.

$6 \div \frac{1}{7} = \square$ $\quad$ $7 \div \frac{1}{4} = \square$

$5 \div \frac{1}{\square} = 45$ $\quad$ $\square \div \frac{1}{6} = 30$

28. The diagram shows the dimensions of an aquarium.



Which expression can be used to find the volume of the aquarium?

Ⓐ $60 + 13 + 60 + 13$

Ⓑ $13 \times 13 \times 60$

Ⓒ 60×13

Ⓓ $60 + 13$

29. One box of crackers contains 2,470 calories. Each serving of crackers contains 83 calories. About how many servings are in the box? Explain your answer.

30. Jana made trail mix with $1\frac{3}{4}$ cups of almonds, $\frac{5}{8}$ cup shredded coconut, and $\frac{1}{2}$ cup of dried mango. How many cups of chocolate chips does she need to add to have 4 total cups of trail mix? Draw a diagram and write an equation to help.