Reducing Fractions

1) $\dfrac{28}{40}$ = ___

2) $\dfrac{6}{12}$ = ___

3) $\dfrac{12}{16}$ = ___

4) $\dfrac{16}{32}$ = ___

5) $\dfrac{3}{21}$ = ___

6) $\dfrac{60}{70}$ = ___

7) $\dfrac{24}{48}$ = ___

8) $\dfrac{7}{28}$ = ___

9) $\dfrac{7}{14}$ = ___

10) $\dfrac{24}{...}$ =

11) $\dfrac{10}{50}$ = ___

12) $\dfrac{70}{80}$ = ___

13) $\dfrac{56}{70}$ = ___

14) $\dfrac{16}{24}$ = ___

15) $\dfrac{8}{16}$ = ___

16) $\dfrac{8}{24}$ = ___

17) $\dfrac{24}{64}$ = ___

18) $\dfrac{9}{45}$ = ___

19) $\dfrac{2}{4}$ = ___

20) $\dfrac{4}{...}$ =

21) $\dfrac{14}{63}$ = ___

22) $\dfrac{7}{28}$ = ___

23) $\dfrac{4}{28}$ = ___

24) $\dfrac{10}{30}$ = ___

25) $\dfrac{18}{90}$ = ___

26) $\dfrac{9}{12}$ = ___

27) $\dfrac{21}{35}$ = ___

28) $\dfrac{14}{18}$ = ___

29) $\dfrac{16}{48}$ = ___

30) $\dfrac{25}{...}$ =

Name : _____   Score : _____

Teacher : _____   Date : _____

Adding Fractions

1) $\dfrac{1}{5} + \dfrac{3}{4} + \dfrac{1}{3} =$

2) $\dfrac{1}{3} + \dfrac{3}{4} + \dfrac{1}{5} =$

3) $\dfrac{4}{5} + \dfrac{2}{3} + \dfrac{7}{10} =$

4) $\dfrac{1}{2} + \dfrac{3}{10} + \dfrac{4}{5} =$

5) $\dfrac{1}{2} + \dfrac{6}{10} + \dfrac{1}{5} =$

6) $\dfrac{3}{4} + \dfrac{1}{2} + \dfrac{1}{10} =$

7) $\dfrac{9}{10} + \dfrac{2}{3} + \dfrac{3}{4} =$

8) $\dfrac{2}{4} + \dfrac{1}{2} + \dfrac{4}{10} =$

9) $\dfrac{1}{2} + \dfrac{2}{5} + \dfrac{3}{4} =$

10) $\dfrac{2}{5} + \dfrac{2}{10} + \dfrac{1}{3} =$

Subtracting Mixed Numbers

1) $5\frac{5}{28} - 3\frac{4}{14} =$

2) $6\frac{6}{7} - 1\frac{10}{21} =$

3) $5\frac{2}{11} - 1\frac{1}{22} =$

4) $5\frac{1}{8} - 4\frac{2}{16} =$

5) $5\frac{3}{4} - 4\frac{2}{14} =$

6) $6\frac{7}{26} - 4\frac{3}{13} =$

7) $6\frac{2}{22} - 2\frac{9}{11} =$

8) $8\frac{7}{14} - 4\frac{1}{7} =$

9) $5\frac{1}{3} - 3\frac{1}{4} =$

10) $5\frac{11}{} - 4\frac{4}{} =$

Name : _____   Score : _____

Teacher : _____   Date : _____

Multiplying Fractions with Cross Canceling

1) $\dfrac{1}{3} \times \dfrac{5}{6} =$

2) $\dfrac{1}{3} \times \dfrac{15}{18} =$

3) $\dfrac{8}{18} \times \dfrac{17}{20} =$

4) $\dfrac{5}{10} \times \dfrac{4}{5} =$

5) $\dfrac{2}{4} \times \dfrac{1}{6} =$

6) $\dfrac{13}{20} \times \dfrac{1}{4} =$

7) $\dfrac{3}{7} \times \dfrac{10}{14} =$

8) $\dfrac{7}{10} \times \dfrac{13}{15} =$

9) $\dfrac{2}{5} \times \dfrac{9}{18} =$

10) $\dfrac{3}{16} \times \dfrac{1}{2} =$

Dividing Fractions

1) $\dfrac{2}{5} \div \dfrac{3}{4} =$

2) $\dfrac{2}{5} \div \dfrac{6}{16} =$

3) $\dfrac{2}{4} \div \dfrac{6}{8} =$

4) $\dfrac{5}{9} \div \dfrac{2}{12} =$

5) $\dfrac{1}{15} \div \dfrac{6}{7} =$

6) $\dfrac{4}{7} \div \dfrac{10}{15} =$

7) $\dfrac{4}{7} \div \dfrac{5}{14} =$

8) $\dfrac{3}{8} \div \dfrac{5}{10} =$

9) $\dfrac{4}{8} \div \dfrac{6}{7} =$

10) $\dfrac{9}{} \div \dfrac{1}{} =$

Mean, Median, Mode, and Range Definitions

Mean :

The "Mean" is computed by adding all of the numbers in the data together and dividing by the number elements contained in the data set.

Example :

Data Set   =   2, 5, 9, 3, 5, 4, 7

Number of Elements in Data Set = 7

Mean = (2 + 5 + 9 + 7 + 5 + 4 + 3) / 7 = 5

Median :

The "Median" of a data set is dependant on whether the number of elements in the data set is odd or even. First reorder the data set from the smallest to the largest then if the number of elements are odd, then the Median is the element in the middle of the data set. If the number of elements are even, then the Median is the average of the two middle terms.

Examples : Odd Number of Elements

Data Set   =   2, 5, 9, 3, 5, 4, 7

Reordered   =   2, 3, 4, 5, 5, 7, 9
$\qquad\qquad\qquad\qquad\qquad$ ^

Median   =   5

Examples : Even Number of Elements

Data Set   =   2, 5, 9, 3, 5, 4

Reordered   =   2, 3, 4, 5, 5, 9
$\qquad\qquad\qquad\qquad$ ^ ^

Median   =   (4 + 5) / 2 = 4.5

Mean, Median, Mode, and Range Definitions

Mode :

The "Mode" for a data set is the element that occurs the most often.
It is not uncommon for a data set to have more than one mode.
This happens when two or more elements occur with equal frequency
in the data set. A data set with two modes is called bimodal.
A data set with three modes is called trimodal.

Examples : Single Mode

$$\text{Data Set} \quad = \quad 2, 5, 9, 3, 5, 4, 7$$
$$\text{Mode} \quad = \quad 5$$

Examples : Bimodal

$$\text{Data Set} \quad = \quad 2, 5, 2, 3, 5, 4, 7$$
$$\text{Modes} \quad = \quad 2 \text{ and } 5$$

Examples : Trimodal

$$\text{Data Set} \quad = \quad 2, 5, 2, 7, 5, 4, 7$$
$$\text{Modes} \quad = \quad 2, \ 5, \text{ and } 7$$

Range :

The "Range" for a data set is the difference between the largest value and
smallest value contained in the data set. First reorder the data set from
smallest to largest then subtract the first element from the last element.

Examples :

$$\text{Data Set} \quad = \quad 2, 5, 9, 3, 5, 4, 7$$
$$\text{Reordered} \quad = \quad 2, 3, 4, 5, 5, 7, 9$$
$$\text{Range} \quad = \quad (9 - 2) = 7$$

Name : _____   Score : _____

Teacher : _____   Date : _____

Mean, Mode, Median, and Range

1) 14, 13, 20, 14, 20, 15, 16

Mean ____ Median ____ Mode _____ Range ____

2) 15, 6, 14, 11, 19

Mean ____ Median ____ Mode _____ Range ____

3) 10, 10, 9, 11, 5, 6, 10, 9, 6, 14

Mean ____ Median ____ Mode _____ Range ____

4) 17, 19, 15, 10, 9

Mean ____ Median ____ Mode _____ Range ____

5) 16, 13, 7, 16, 15, 17, 14

Mean ____ Median ____ Mode _____ Range ____

6) 13, 13, 19, 7, 9, 20, 20, 19

Mean ____ Median ____ Mode _____ Range ____

7) 7, 9, 15, 16, 6, 14, 9, 14, 18

Mean ____ Median ____ Mode _____ Range ____

8) 20, 7, 11, 14, 16, 10, 12, 6

Mean ____ Median ____ Mode _____ Range ____

9) 8, 7, 17, 12, 15, 7

Mean ____ Median ____ Mode _____ Range ____

10) 17, 17, 14, 19, 14, 9

Mean ____ Median ____ Mode _____ Range ____

MINI MATH MYSTERY
THE MISSING TEACHER

DIRECTIONS

A teacher has been kidnapped. As a private math inspector, it is your job to determine who the villain is. Solve the math problems below, then use your answer to eliminate the clues on the right and solve the mystery.

Person	
◯ Lamia Lawson	9
◯ Kage Knight	5
◯ Caym Smith	4
◯ Colton Danger	20
◯ Bronwen Barlow	12
◯ Damballa Trevino	35
◯ Sidero Sideshow	7
◯ Gorgon Howe	14
◯ Kalaraja Kelly	24
◯ Mary Winter	3
◯ Semele Stephens	80
◯ Dwade Dagger	10
◯ Valdis Walker	16
◯ Layla Clayton	29
◯ Samara Varas	0
◯ Brenna Jones	40
◯ Draven Robinson	11
◯ Damian Baird	8
◯ Anpu Gould	17
◯ Lola Aguirre	6
◯ Nox Wilson	48
◯ Simon Smartie	27
◯ Harold Hinter	39
◯ Kelly Jamieson	26
◯ Toby Wyatt	60

Answer

1. $(2+6) \times 10 =$

3. $5 + 3 \times 2 =$

5. $(12+8) \div 2 =$

7. $4 + 15 \div 3 =$

9. $8 + 3 \times 6 =$

11. $16 - 3 \times 4 =$

13. $35 \div (19 - 14) =$

15. $8 \times 6 - 8 =$

17. $4 + 5 \times 7 =$

19. $8 + 9 \times 3 =$

21. $4 \times (20 - 8) =$

23. $27 \div (16 - 7) =$

Answer

2. $35 \div (15 - 8) =$

4. $12 + (3 \times 5) =$

6. $2 \times (9 - 6) =$

8. $(3 \times 2) + 6 =$

10. $4 \times 2 - 8 =$

12. $6 \times 2 + 4 =$

14. $(10 + 2) \times 5 =$

16. $2 \times (3 \times 4) =$

18. $15 + 6 \div 3 =$

20. $32 - 6 \times 4 =$

22. $36 \div 6 + 8 =$

24. $8 + 7 \times 3 =$

The Villain is...

MINI MATH MYSTERY
THE MISSING PHONE

DETECTIVE

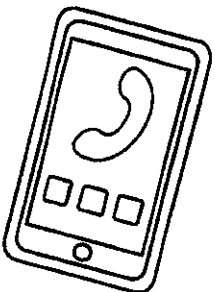**Kiwiland**
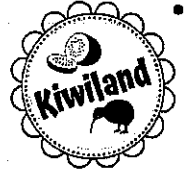
DIRECTIONS

A friend has had their phone stolen. As a private math inspector, it is your job to determine who the thief is. Solve the math problems below, then use your answer to eliminate the clues on the right and solve the mystery.

Person	
Lamia Lawson	30
Kage Knight	9
Caym Smith	6
Colton Danger	4
Bronwen Barlow	23
Damballa Trevino	28
Sidero Sideshow	11
Gorgon Howe	18
Kalaraja Kelly	26
Mary Winter	14
Semele Stephens	20
Dwade Dagger	17
Valdis Walker	7
Layla Clayton	8
Samara Varas	36
Brenna Jones	56
Draven Robinson	12
Damian Baird	24
Anpu Gould	2
Lola Aguirre	15
Nox Wilson	45
Simon Smartie	50
Harold Hinter	33
Kelly Jamieson	55
Toby Wyatt	16

Answer

1. $(5 + 4) \times 4 =$

3. $6 \times 3 + 5 =$

5. $16 - 4 \div 4 =$

7. $3 \times (2 + 8) =$

9. $15 \div 3 \times 4 =$

11. $(9 - 2) \times 8 =$

13. $(9 + 9) \div 2 =$

15. $3 \times (5 + 6) =$

17. $2 \times 8 - 4 =$

19. $8 + 16 \div 2 =$

21. $10 - 9 \div 3 =$

23. $4 \times 5 + 8 =$

Answer

2. $3 \times 10 - 4 =$

4. $5 + 18 \div 6$

6. $6 \times 7 + 13 =$

8. $6 + 15 \div 3 =$

10. $3 + 15 \div 5 =$

12. $6 \times 7 + 3 =$

14. $10 + 4 \times 2 =$

16. $6 - 10 \div 5 =$

18. $5 \times (20 - 10) =$

20. $25 - 5 \div 5 =$

22. $4 \times 5 - 3 =$

24. $(5 + 3) \div 4 =$

The Villain is...

Ratios and Rates

Express each phrase as a rate and unit rate.
(Round your answer to the nearest hundredth.)

	Rate	Unit Rate
1) 7 batteries cost 25 dollars	$25 / 7 batteries	$ 3.57 per battery
2) 4 calculators cost $150.00	_____	_____
3) 6 pencils for 9 dollars	_____	_____
4) 5 movie tickets cost $30.00	_____	_____
5) 14 dollars for 5 books	_____	_____
6) 150 miles on 7 gallons of gas	_____	_____
7) 5 dollars for 4 cans of tuna	_____	_____
8) 15 chocolate bars cost 15 dollars	_____	_____
9) mowed 6 yards for $40.00	_____	_____
10) 10 inches of snow in 6 hours	_____	_____

ⓒPerformance Task 1
Summer Vacation: Year 2995

Name _____

1 Yolanda and her family are voyaging to the edge of the Milky Way for summer vacation. But she still has to do her summer math project! To start the assignment, Yolanda records the distance the spaceship traveled since breakfast.

7,837,927,457 miles
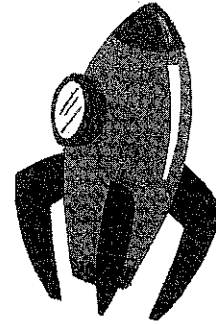
A. Write the value of each 7. If Yolanda starts with the 7 in the ones place, how could she get numbers equal to the values of the other 7s?

B. HANK, the family robot, printed some decimals for Yolanda.

Write each in standard form. Then order them from greatest to least.

| six hundred eighty-three thousandths |
|---|
| $(7 \times \frac{1}{10}) + (8 \times \frac{1}{100})$ |
| $(6 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (8 \times \frac{1}{1000})$ |
| seven hundred eight thousandths |

C. HANK gives Yolanda another task. He asks her to round each decimal in problem **B** above to the nearest tenth.

A Handy Helper

2 Yolanda's brother George also has to keep up with his summer math project. When George sits down with HANK, the robot prints some incomplete multiplication sentences.
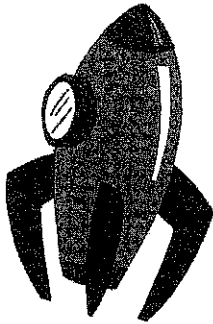
A. Help George complete the multiplication sentences below. Then describe the pattern. Write the next multiplication sentence in the pattern.

$30 \times 20 =$ _____

3_____ $\times 20 = 6,000$

$3,000 \times 20 =$ _____

3_____ $\times 20 = 600,000$

Yolanda and George's home on Earth has a greenhouse with 68 tomato plants. Last week HANK told the greenhouse computer to give each tomato plant 284 mL of water. This week HANK told the greenhouse computer to give each tomato plant 307 mL of water.

**B.** How much water did the tomato plants get in all?

C. Next week each tomato plant will need 20 mL more than half the water it got this week. Write an expression for the direction HANK might give to the greenhouse computer.

3 A member of the space ship crew checks the supply of fruit snacks. He notices that there are 15,481 fruit snacks left in the holding bin of the ship. Unfortunately, he also sees that space mice have munched on 1,128 of the snacks. There are 47 people on the spaceship. Each person gets one fruit snack each day.
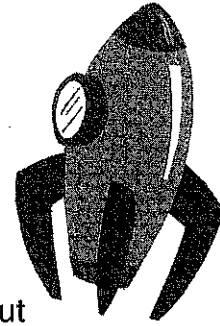
A. How long can the voyage continue before the space ship runs out of fruit snacks?

Here are some strategies you can use.
• Draw an array.
• Draw an area model.
• Multiply to divide.
• Break apart the dividend.

Twice a day, each of the 47 people on the spaceship takes a vitamin capsule. They also take a mineral capsule at breakfast, lunch, and dinner, however 12 people do not take these mineral capsules.

B. Write an expression for the total number of capsules taken each day. Evaluate your expression.

Name _____

4 George is working on his miniature magnetic train. The rocket locomotive is $\frac{7}{8}$ inch long. George attaches a meteor car that is $\frac{2}{3}$ inch long. Then he attaches a Martian cattle car that is $\frac{5}{6}$ inch long.

A. How long is the magnetic train now? Write your answer in simplest form.
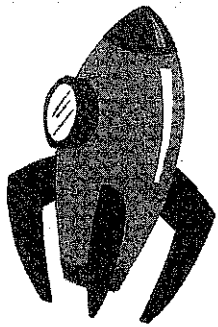
Yolanda is making a model of a galaxy worm. The worm's head is $2\frac{1}{2}$ meters long. She decides that is too long, so she cuts $\frac{3}{4}$ meter off. Then Yolanda attaches the worm's tail, which is $3\frac{3}{5}$ meters long.

B. How long is the galaxy worm? Write your answer in simplest form.

☯ Performance Task 2
The Golden Crust Pizzeria

Name _____

1 Vincent is a waiter at his family's pizzeria, The Golden
Crust. This restaurant is known for its large vegetarian-
style rectangular pizzas. It is no surprise that many
patrons take home some of their leftover pizza.

A. The Dozzo family has $\frac{4}{5}$ of the asparagus pizza left over from their
dinner. Mr. Dozzo wants to take home $\frac{3}{4}$ of it. Will Vincent give him
less than $\frac{4}{5}$ pizza, more than $\frac{4}{5}$ pizza, or $\frac{4}{5}$ pizza? Explain.

B. Mr. Benvenuto loves the broccoli pizza. There are $1\frac{1}{2}$ broccoli
pizzas left from his family's dinner. Mr. Benvenuto tells Vincent he
only wants $\frac{2}{3}$ of the broccoli pizzas to take home. How much pizza
will Vincent give him?

- Draw a diagram.
- Write a multiplication sentence.

C Performance Task 2
A Most Important Ingredient

Name _____

3 Vincent gets three packages of fresh mozzarella from the refrigerator. The first package weighs 0.84 pound. The second package weighs 1.37 pounds. The third package lost its label. Vincent weighs the three packages together and finds the total weight is 4.3 pounds.
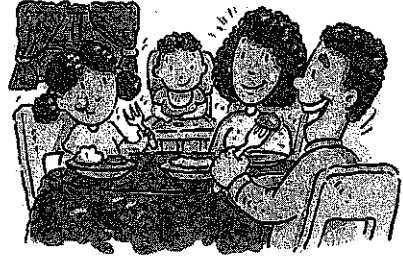
A. How much does the third package of mozzarella weigh?

Here are some strategies you can use.
- Use ones flats, tenths rods, and hundredths cubes.
- Draw models.
- Use properties of addition.
- Use place value.

Terry is making three pizzas with ricotta cheese. She starts with 2.14 pounds of ricotta. She puts 0.45 pound of ricotta on a large pizza. She puts 0.28 pound of ricotta on a medium pizza. And she puts 0.14 pound of ricotta on a small pizza.
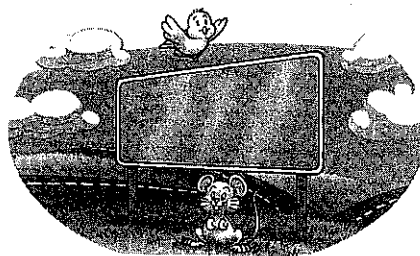
**B.** Estimate how much ricotta Terry put on the three pizzas. Calculate how much ricotta Terry has left.

Sorento Signs, Inc.

1 Teresa works for Sorento Signs, a family-owned
company that makes all kinds of signage for schools,
cities, and businesses.

A. Help Teresa classify the signs below by completing the
table and writing the names of the polygons. Then write the
letter of each sign in **one** category. Be careful—some signs
fit in more than one category!
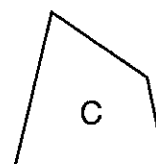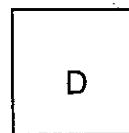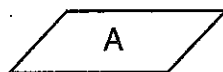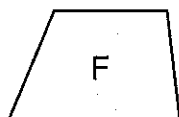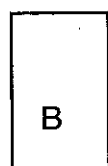
Polygon	Sides	Angles	Sign
_____	4 sides		_____
_____	just 1 pair of parallel sides		_____
_____	2 pairs of parallel, congruent sides		
_____	2 pairs of parallel, congruent sides	4 right angles	_____
_____	2 pairs of parallel sides; all 4 sides congruent		_____
_____	2 pairs of parallel sides; all 4 sides congruent	4 right angles	

B. How else could sign D be classified?

_____

C. How else could be sign E be classified?

_____

D. How else could sign F be classified?

_____

Name _____

2 Fred is a sign painter at Sorento Signs. Today he has to paint 3 red signs. The first sign will take 7 pints of paint. The second sign will take 4 quarts of paint. The third sign will take 6 cups of paint. Once Fred knows what paint color, or colors, all the signs will be, he goes to the storage warehouse to get the paint. In this situation, he only needs the color red.
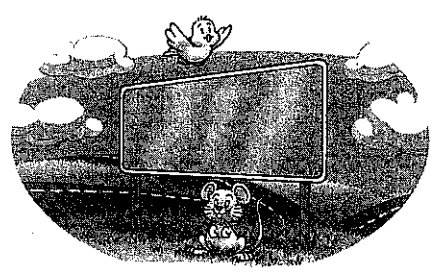
A. Determine whether Fred should get a 1-gallon can, a 2-gallon can, or a 3-gallon can of red paint from the warehouse.

> **Think**
> 2 cups = 1 pint
> 2 pints = 1 quart
> 4 quarts = 1 gallon

Fred climbs 2.3 meters up a ladder to paint a sign. Then he moves down the ladder 500 millimeters to do some more painting. Finally he climbs 75 centimeters back up the ladder to finish the painting.

B. How many meters off the ground is Fred when he finishes the painting of this sign?
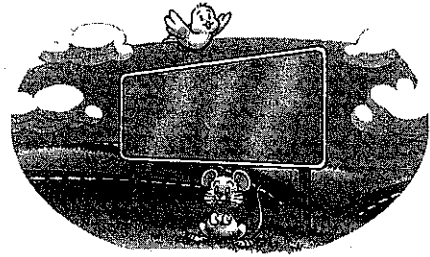
> **Think**
> 1 m = 1,000 mm
> 1 m = 100 cm

The Area of Signs

3 Teresa is making a rectangular sign for a health club.
The sign will be $\frac{1}{4}$ yard wide and $\frac{4}{5}$ yard long.

A. Fred tells Teresa he has enough paint to cover $\frac{1}{8}$ square
yard of the health club's sign. Will Fred need more paint
to complete the painting of this sign? Explain.

Here are some strategies you can use.
- Draw a diagram.
- Use the formula for area.

> **Think**
> $A = \ell \times w$

Sorento Signs got an additional order from the health club for
two more signs. The first sign will be a rectangle that measures
$12\frac{1}{2}$ feet long and $4\frac{2}{5}$ feet wide. The second sign will be a
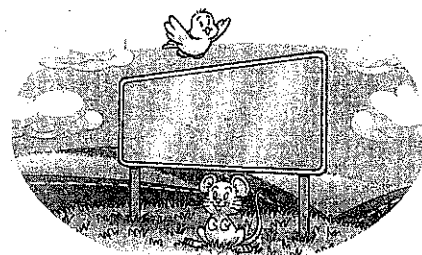square with sides that measure $7\frac{1}{2}$ feet.

B. How many square feet will Fred need to paint in all?

4 Teresa is making a sign for a pet store that specializes in fish. The sign is a clear rectangular prism that looks like an aquarium. The sign has a length of 9 feet, a width of 4 feet, and a height of 6 feet. The sign will be filled with blue foam to look like water.

A. What is the volume of the sign?

Here are some strategies you can use.
- Draw a diagram and count the unit cubes.
- Use a formula for volume.

> **Think**
> $V = \ell \times w \times h$
> $V = B \times h$

A box store orders a sign that will look like three stacked boxes.
The bottom box will measure 8 feet long, 6 feet wide, and 4 feet tall.
The middle box will measure 5 feet long, 4 feet wide, and 3 feet tall.
The top box will measure 3 feet long, 2 feet wide, and 2 feet tall.

B. What is the total volume of the sign?
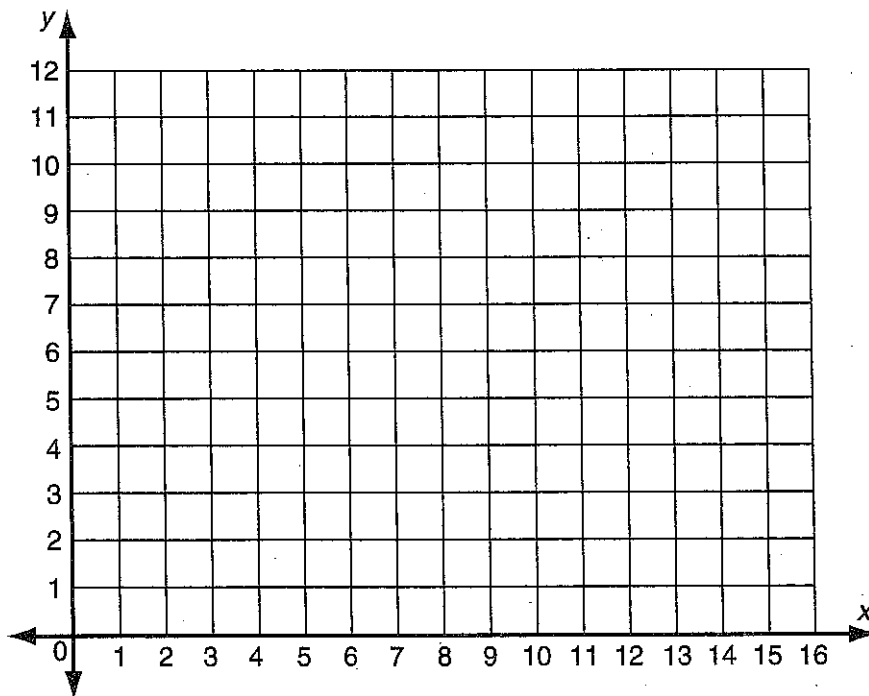
The Mystery Sign

Name _____

5 Fred is painting a billboard in the city. But his directions are mysterious—he doesn't know what words he will paint! He is given seven sets of ordered pairs, one for each letter on the billboard. For each set, he must locate the points on the billboard. Then he must connect the points to form the letter.
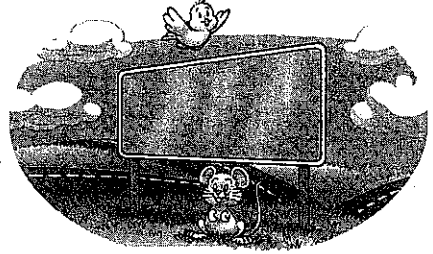
A. Help Fred paint the billboard. The key is to connect the points of each letter in order. So, each time you locate a new point, connect it to the last point. What kind of company ordered the billboard?

Letter	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
1	(1, 7)	(1, 11)	(3, 11)	(3, 9)	(1, 9)	(3, 9)	(3, 7)	(1, 7)
2	(5, 11)	(5, 7)	(7, 7)	(7, 11)				
3	(9, 11)	(10, 9)	(11, 11)	(10, 9)	(10, 7)			
4	(1, 1)	(1, 5)	(3, 1)	(3, 5)				
5	(5, 5)	(5, 1)	(7, 1)	(7, 5)				
6	(9, 5)	(11, 5)	(10, 5)	(10, 1)				
7	(15, 5)	(13, 5)	(13, 3)	(15, 3)	(15, 1)	(13, 1)		

Yummy Strawberries at the Farmer's Market

1. Olga goes to the farmer's market to buy strawberries for a class party. There are 27 children in her class, but 9 of them do not like strawberries. Olga wants to buy 3 strawberries for each classmate who likes strawberries.

   a. Olga writes the expression $(3 \times 27) - 9$ to find the number of strawberries she should buy. What error did Olga make when she wrote the expression?

   b. Evaluate the expression that Olga wrote in item 1.a. above: $(3 \times 27) - 9$.

   c. Write a correct expression Olga can use to find the number of strawberries she should buy.

   d. Evaluate the expression you wrote in item 1.c. above. How many strawberries should Olga buy?

Boxes of Granola Bars

2. Ms. Sandino, the owner of a health food super store, receives 14 boxes of granola bars. Each box contains 248 bars.

   a. Find the total number of granola bars Ms. Sandino receives.

   b. Ms. Sandino wants to put an equal number of granola bars on each of 8 display racks. Find the number of granola bars she should put on each display rack. Use your answer from item 2.a. above.

   c. Show how you can use the relationship between multiplication and division to check your answer to item 2.b. above.

Bean Stew

3. Andrew purchases two kinds of beans to make stew. He buys $2\frac{1}{2}$ pounds of pinto beans and $1\frac{5}{8}$ pounds of kidney beans.

   a. Andrew estimates that he purchases about 3 pounds of beans altogether. Do you agree or disagree with his estimate? Explain.

   b. Find the exact weight of the beans Andrew purchases.

   c. Explain how knowing about equivalent fractions helped you find the exact weight of the beans in item 3.b. above.

   d. Andrew uses $\frac{3}{4}$ pound of the beans he buys to make a stew. How many pounds of beans does Andrew have left?

Advertising a Sale on Organic Avocados

4. Ms. Sandino makes a rectangular sign to advertise an unexpected bulk shipment of organic avocados. The sign is $\frac{3}{10}$ meter wide and $\frac{4}{5}$ meter long.

   a. What is the area of the sign?

   b. The store manager looks at the sign and says, "I think you should make a new sign. The area of the new sign should be $\frac{5}{4}$ the area of this sign." Does the store manager want the new sign to be larger or smaller than the sign Ms. Sandino made? Explain how you know.

   c. Find the area for the sign that the store manager would like to have.

   d. Find the length and width of a sign that would have an area $\frac{5}{4}$ the area of Ms. Sandino's sign.

The Deli Counter

5. Terrence works the late afternoon shift at the deli counter. He uses 3 pounds of turkey breast to make sandwiches. He puts $\frac{1}{4}$ pound of turkey breast in each sandwich.

   a. Draw a model that Terrence could use to find how many sandwiches he can make. Explain how your model shows the number of sandwiches Terrence can make.

   b. Write a division equation that your model in item 5.a. above shows.

   c. Use the relationship between multiplication and division to show that your division equation is correct.

   d. After Terrence finishes making the sandwiches, he begins to slice some cheddar cheese. He writes the expression $\frac{1}{2} \div 10$. Write and solve a story problem that matches Terrence's expression.