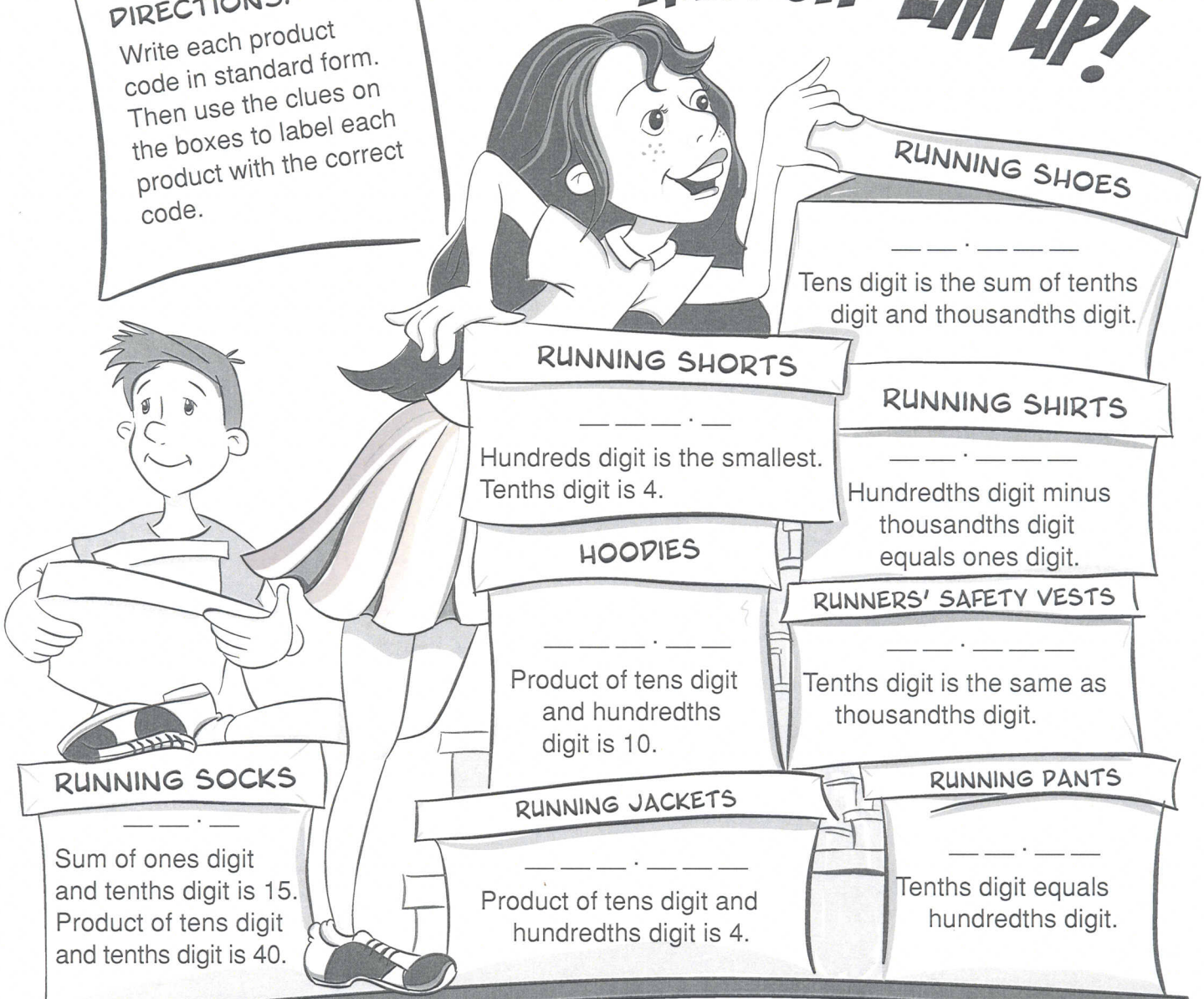
Name _____ Place value of decimals

MATCH 'EM UP!

DIRECTIONS:
Write each product code in standard form. Then use the clues on the boxes to label each product with the correct code.



RUNNING SHOES
__ __ . __ __ __
Tens digit is the sum of tenths digit and thousandths digit.

RUNNING SHORTS
__ __ __ . __
Hundreds digit is the smallest. Tenths digit is 4.

RUNNING SHIRTS
__ __ . __ __ __
Hundredths digit minus thousandths digit equals ones digit.

HOODIES
__ __ __ . __ __
Product of tens digit and hundredths digit is 10.

RUNNERS' SAFETY VESTS
__ __ . __ __ __
Tenths digit is the same as thousandths digit.

RUNNING SOCKS
__ __ . __
Sum of ones digit and tenths digit is 15. Product of tens digit and tenths digit is 40.

RUNNING JACKETS
__ __ __ . __ __ __
Product of tens digit and hundredths digit is 4.

RUNNING PANTS
__ __ . __ __
Tenths digit equals hundredths digit.

PRODUCT CODES

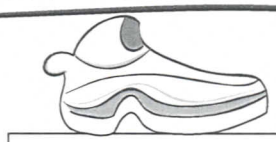
1. fifty-seven and eighty thousandths _____
2. fifty-six and ninety-nine hundredths _____
3. fifty-seven and eight tenths _____
4. one hundred twenty-eight and five hundredths _____
5. one hundred twenty-eight and four tenths _____
6. ninety-two and eight hundred forty-one thousandths _____
7. one hundred twenty-nine and twenty-six thousandths _____
8. fifty-seven and eighty-one thousandths _____

Bonus Box: On the back of this page, list the standard form of the product codes in order from least to greatest.

Name _____ **Place value of whole numbers**

Sports-Shoe Sales

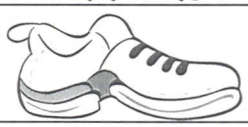
727,036
BUSTLERS



4,050,501
DARTERS

23,768
DASHERS

7,040,100
FLIERS



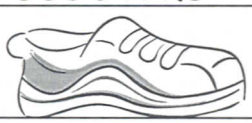
7,004,500
MOVERS

23,867
RACERS

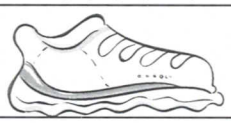
726,019
SCOOTERS

23,077
SCRAMMERS

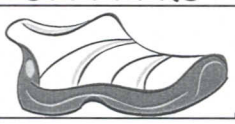
4,035,512
SPEEDERS



7,400,001
SPRINTERS



4,005,050
TRACKERS



726,190
ZOOMERS

Order the sales by style from least to greatest. The first one has been done for you.

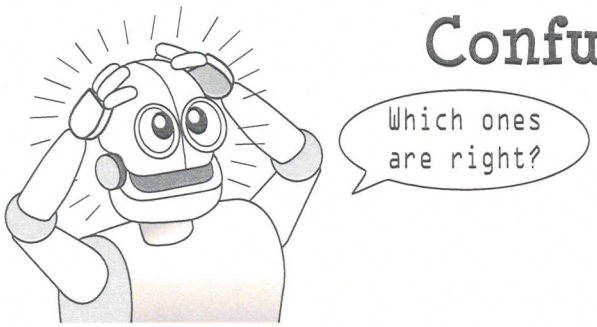
SALES BY STYLE FROM LEAST TO GREATEST

1. Scrammers
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Write each standard-form number above next to its matching word form below.

13. seven hundred twenty-six thousand, one hundred ninety _____
14. seven million, four thousand, five hundred _____
15. twenty-three thousand, seventy-seven _____
16. four million, thirty-five thousand, five hundred twelve _____
17. twenty-three thousand, eight hundred sixty-seven _____
18. four million, five thousand, fifty _____
19. seven million, forty thousand, one hundred _____
20. seven hundred twenty-six thousand, nineteen _____
21. twenty-three thousand, seven hundred sixty-eight _____
22. four million, fifty thousand, five hundred one _____
23. seven million, four hundred thousand, one _____
24. seven hundred twenty-seven thousand, thirty-six _____

Confused Robot



Read each direction.
Perform the move with each letter, one at a time, in the given word.
Cut out the letters below if you need help.
Circle the correct answer.

1. Rotate 90° clockwise: MOO.
   a. ⅀ O O
   b. W O O
   c. ⅀ O O

2. Reflect right: TOM.
   a. ⊢ O ⅀
   b. T O M
   c. ⊥ O W

3. Reflect down: MAD.
   a. ⅀ ∀ ᗡ
   b. ⅀ ∀ ᗡ
   c. W ∀ D

4. Rotate 180° clockwise: SOAP.
   a. S O ∀ ⅁
   b. Ƨ O A ꟼ
   c. Ƨ O ∀ ꟼ

5. Rotate 270° clockwise: REST.
   a. ꓤ Ǝ S ⊢
   b. ꓤ Ǝ S ⊥
   c. ꓤ Ǝ S ⊢

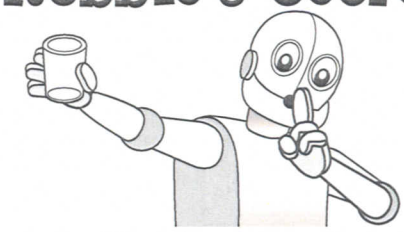
6. Reflect left: MIT.
   a. W I ⊥
   b. M I T
   c. ⅀ ⊣ ⊢

Bonus Box: Which word(s) did not change after the move?

M	O	T	A	D	S	P	R	E	I

 Note to the teacher: Each student may need scissors to complete this page.

Robbie's Secret



Cut out the boxes and coin below.
Fold the coin along the dotted line. Glue the back sides together.
Use the coin to solve the problems. All rotations are clockwise.
Glue the drawing that shows how each move ends in the space provided.

Starting position of coin for problems 1–6:

1. Rotate 90° and reflect left.

2. Reflect down and translate right.

3. Translate up and rotate 180°.

4. Translate down.

5. Rotate 180° and reflect up.

6. Rotate 270° and reflect left.

Starting position of coin for problems 7–12:

7. Rotate 180°.

8. Rotate 90° and reflect up.

9. Translate down and reflect down.

10. Rotate 90° and reflect left.

11. Reflect right and translate up.

12. Rotate 270° and translate up.

Robbie held a glass above his head and then dropped it without spilling any water. What was his secret?

To find out, write the letter of each drawing above in the matching numbered blank below.

__	__		__	__	__		__	__		__	__	__	__	__		__	__	__	__	__	__!
1	2		3	4	5		4	6		7	8	9	2	10		11	12	4	5	5	

A	W	T	E
L	P	N	Y
I	S	G	M

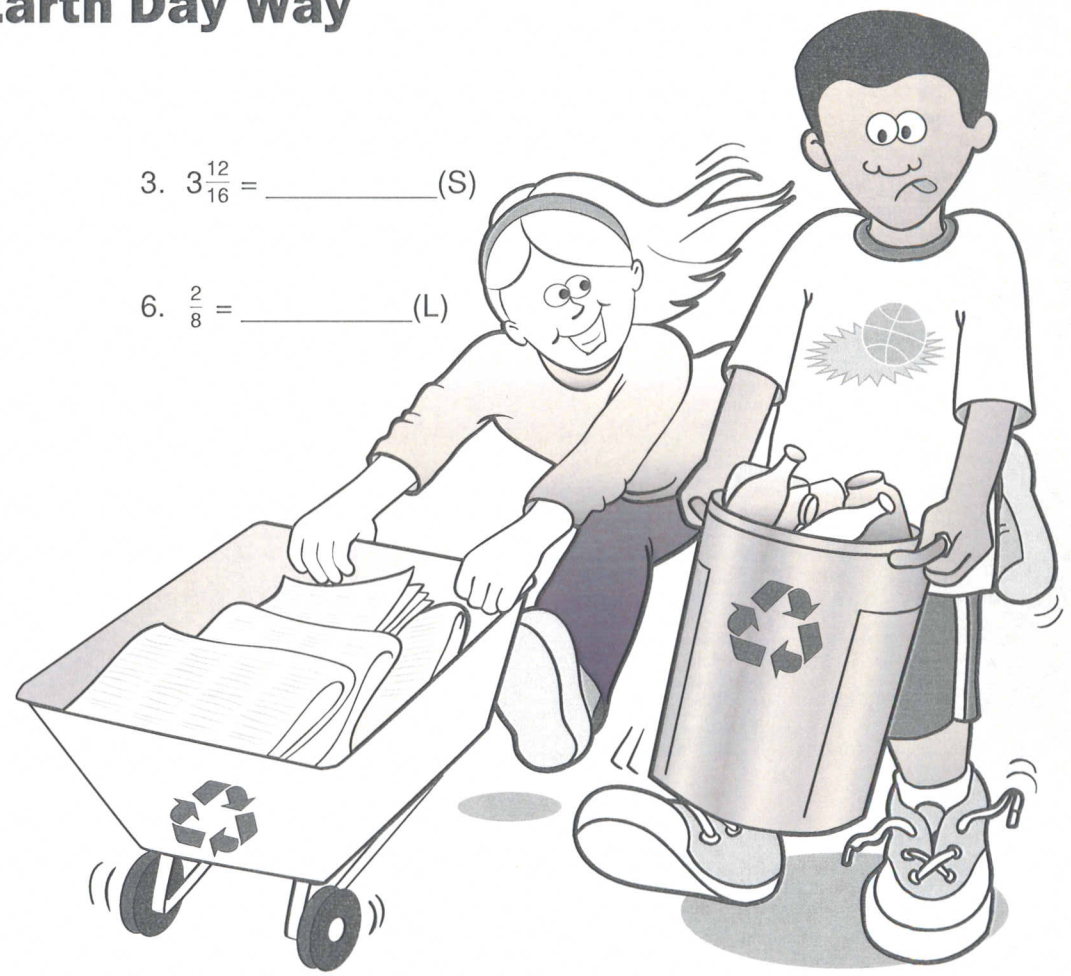
Note to the teacher: Each child will need scissors, glue, and a small mirror to complete this page.

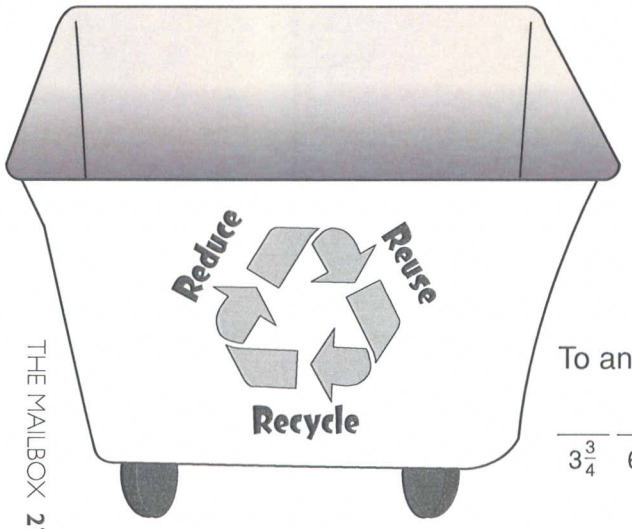
Name _____ Reducing fractions

The Earth Day Way

Write each fraction in simplest form.

1. $\frac{9}{27}$ = _____ (N)
2. $6\frac{4}{8}$ = _____ (A)
3. $3\frac{12}{16}$ = _____ (S)
4. $\frac{12}{24}$ = _____ (T)
5. $\frac{8}{36}$ = _____ (I)
6. $\frac{2}{8}$ = _____ (L)
7. $4\frac{3}{6}$ = _____ (E)
8. $5\frac{2}{8}$ = _____ (R)
9. $\frac{6}{15}$ = _____ (V)
10. $\frac{12}{16}$ = _____ (D)
11. $2\frac{6}{16}$ = _____ (G)
12. $\frac{16}{24}$ = _____ (O)





What can people do to make every day Earth Day?

To answer the question, write the letter of each problem above in its matching answer blank below.

$3\frac{3}{4}$	$6\frac{1}{2}$	$\frac{2}{5}$	$4\frac{1}{2}$		$4\frac{1}{2}$	$\frac{1}{3}$	$4\frac{1}{2}$	$5\frac{1}{4}$	$2\frac{3}{8}$	Y and	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	,	$\frac{1}{4}$	$\frac{2}{9}$	$\frac{1}{2}$	$\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{4}$	!

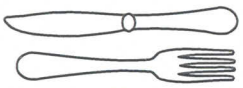
Name _____ Problem solving

Vacation on the Go!

Plan a family trip to two theme parks. Spend less than $400. Include a two-night hotel stay and two meals per day.

Family Meal Deals

(Meal Deals include drinks and side items.)



- **Pizza Dinner $26.80**
- **Hamburgers $22.50**
- **Steak Feast $57.60**

Weekend Getaway

Day One

Park: _____ Cost: $_____

Lunch: _____ Cost: $_____

Dinner: _____ Cost: $_____

Hotel: _____ Cost: $_____

Day Two

Park: _____ Cost: $_____

Lunch: _____ Cost: $_____

Dinner: _____ Cost: $_____

Hotel: _____ Cost: $_____

Total Cost: $_____

Hotels

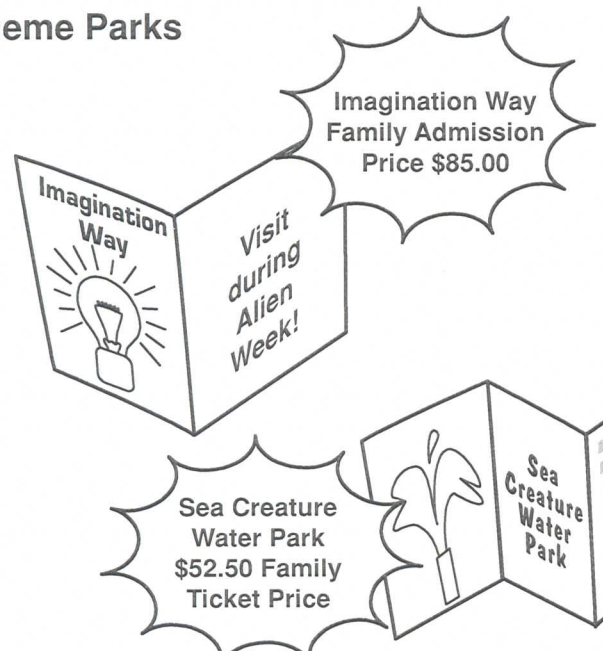
CITY HOTEL — **$60.00 per night**

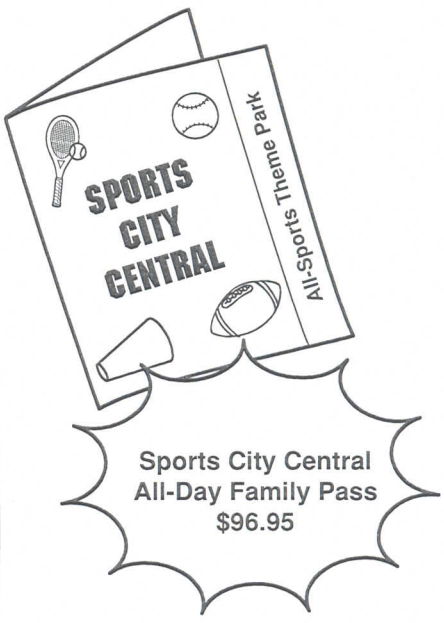
- ■ indoor pool and exercise room
- ■ free breakfast

Hidden Marvel Resort and Hotel — **$100 per night**

- ○ all the comforts of home
- ○ indoor pool and game room
- ○ free breakfast

Theme Parks





Name _____ Date _____

"Jack-o'-Logic"

Six friends—Charlotte, Ian, Ruth, Neil, Emma, and Philip—each carved a jack-o'-lantern for Halloween. Their jack-o'-lanterns are shown below.

a. 

b. 

c. 

d. 

e. 

f. 

A. Use the clues below to match each pumpkin to the person who carved it. Keep track of the information by using the chart. Put a ✓ in each box that is true and an X in each box that is not true.

Clues:

1. Charlotte's jack-o'-lantern has more cutouts than Ruth's.
2. Neil's pumpkin has a circle.
3. The boys all removed the stems from their pumpkins.
4. Emma's pumpkin has no triangles.
5. Philip's jack-o'-lantern is not smiling.

	a	b	c	d	e	f
Charlotte						
Ian						
Ruth						
Neil						
Emma						
Philip						

Answers:

Write the letter of each pumpkin beside the name of the person who carved it.

Charlotte _____ Ian _____ Ruth _____
Neil _____ Emma _____ Philip _____

B. Each friend carved his or her pumpkin on a different day. Use the following clues to number the friends1 to 6 in the order that they carved their pumpkins.

Clues:

1. Ruth carved her pumpkin one day before Emma and one day after Philip.
2. Two days after Emma carved her pumpkin, Ian carved his.
3. Neil carved his pumpkin two days before Charlotte, who completed hers last.

Order in which pumpkins were carved:

Charlotte _____
Ian _____
Ruth _____
Neil _____
Emma _____
Philip _____

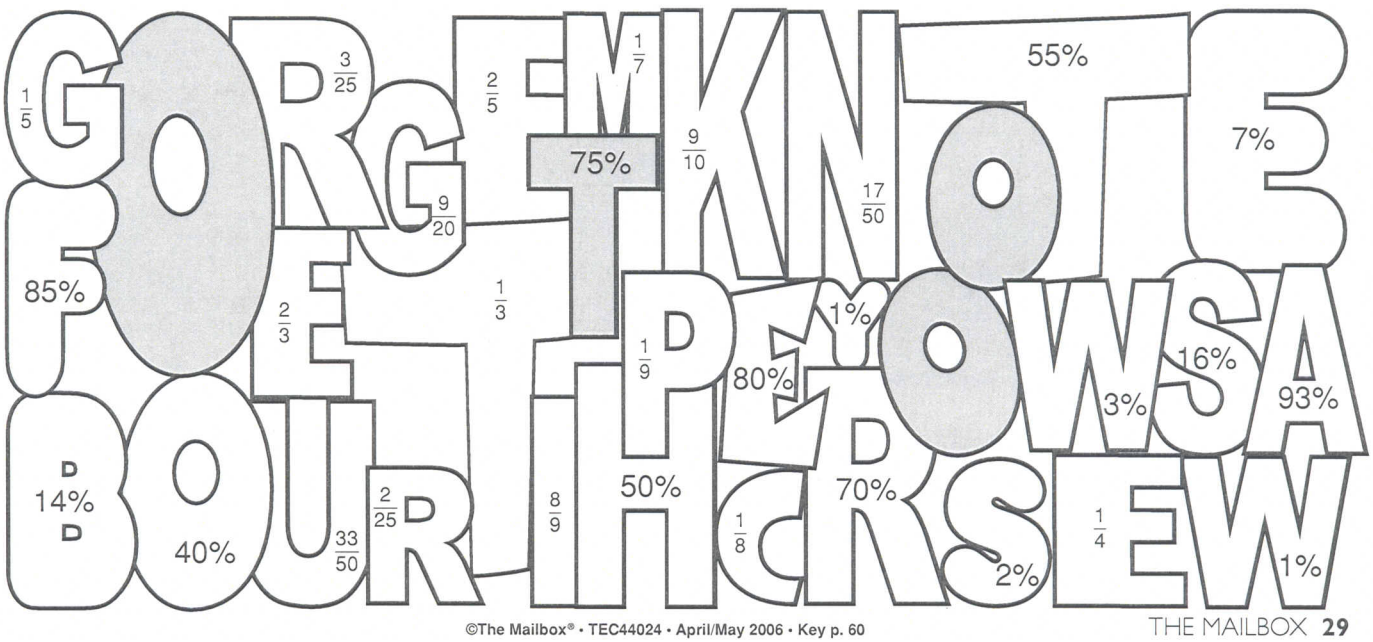
Bonus Box: On the back of this sheet, design your own jack-o'-lantern using a variety of shapes.

Name _____ Converting fractions and percents

Memories of Honor

Change each fraction to a percent and each percent to a fraction. Then color the matching answers at the bottom of the page. The first one has been done for you.

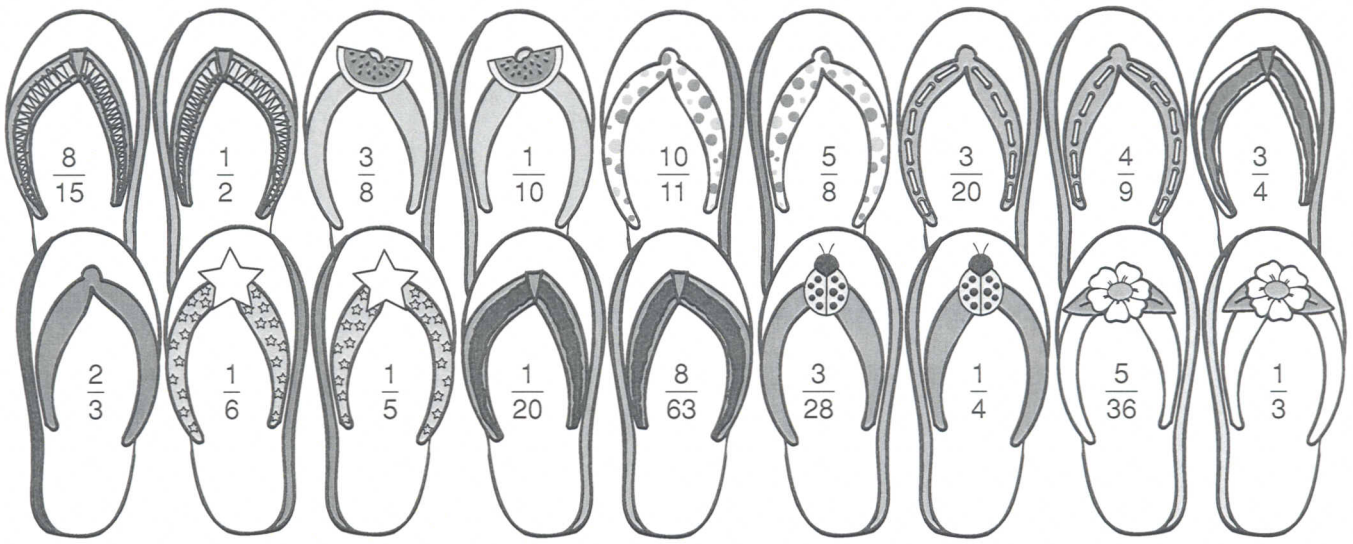
1. $\frac{3}{4}$ = $\frac{75}{100}$ = 75%
2. $\frac{2}{5}$ = _____
3. $\frac{7}{10}$ = _____
4. $\frac{1}{2}$ = _____
5. $\frac{4}{25}$ = _____
6. $\frac{17}{20}$ = _____
7. $\frac{11}{20}$ = _____
8. $\frac{4}{5}$ = _____
9. 12% = _____
10. 66% = _____
11. 25% = _____
12. 45% = _____
13. 34% = _____
14. 8% = _____
15. 40% = _____



Perfect Fit!

Multiply. Write the product in simplest terms. Then color the shoe with the matching answer. Some shoes will not be colored.

1. $\frac{3}{8} \times \frac{2}{5} =$
2. $\frac{6}{8} \times \frac{2}{9} =$
3. $\frac{4}{5} \times \frac{2}{3} =$
4. $\frac{2}{5} \times \frac{5}{6} =$
5. $\frac{6}{10} \times \frac{5}{8} =$
6. $\frac{8}{9} \times \frac{1}{7} =$
7. $\frac{2}{3} \times \frac{6}{9} =$
8. $\frac{4}{10} \times \frac{1}{2} =$
9. $\frac{3}{4} \times \frac{4}{6} =$
10. $\frac{1}{4} \times \frac{5}{9} =$
11. $\frac{1}{5} \times \frac{5}{10} =$
12. $\frac{3}{6} \times \frac{4}{8} =$



fold first

"Cow-culating" with Decimals

by _____

fold second

More Decimal "Cow-culations"

C. 5.6 ÷ 8 = _____

D. 2.0 ÷ 5 = _____

E. 0.9 ÷ 3 = _____

F. 5.4 ÷ 9 = _____

G. 0.64 ÷ 8 = _____

H. 0.10 ÷ 2 = _____

I. 6.3 ÷ 7 = _____

A. Farmer Brown's 4 cows graze on 3.6 acres of land. If each cow grazes on the same amount of land, how many acres is that per cow? Color the grid to help you solve the problem.

Each square equals 0.1 acres.

Each cow gets _____ acres.

B. Molly Milkmaid's 3 cows graze on 2.4 acres of land. If each cow grazes on the same amount of land, how many acres is that per cow? Color the grid to help you solve the problem.

Each square equals 0.1 acres.

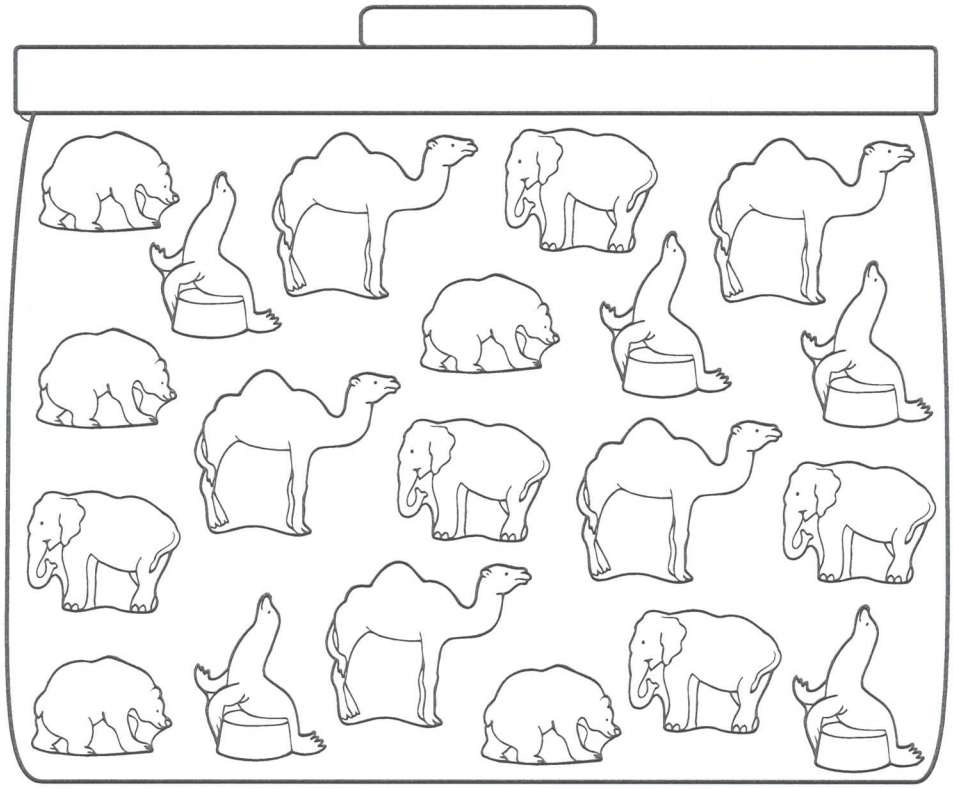
Each cow gets _____ acres.

 Note to the teacher: To complete this page, each student will need four crayons in different colors.

Name _____ Determining the probability of a simple event

Cookie Colors

Follow the directions. Then answer the questions.



Directions

1. Color one cookie yellow.
2. Color four cookies blue.
3. Color five cookies red.
4. Color ten cookies green.

1. How many cookies are there in all? _____

2. What is the probability of pulling each color of cookie out of the cookie jar? Record your answers in word form and fraction form.

	Words	Fraction
yellow	_____	_____
blue	_____	_____
red	_____	_____
green	_____	_____

3. Which color of cookie are you most likely to pull from the jar? _____

4. Which color of cookie are you least likely to pull from the jar? _____

5. Are you more likely to pull out a blue cookie or a red cookie? _____

   Why? _____

6. Suppose you pulled two cookies from the cookie jar. Cross out the outcome below that is impossible. Circle the outcome that is most likely to occur.

   two blue cookies two yellow cookies two green cookies

Note to the teacher: Each student will need crayons in the following colors to complete this page: yellow, blue, red, and green.

Name _____ Dividing decimals to the hundredths

An "A-moo-sing" Riddle

Divide. Circle the letter of each correct answer.

1.	$7.2 \div 8 =$	H. 0.9	L. 9.0	R. 0.09
2.	$0.36 \div 6 =$	J. 0.6	K. 60	V. 0.06
3.	$7.7 \div 7 =$	U. 11	O. 1.1	A. 1.0
4.	$0.48 \div 4 =$	S. 1.2	T. 0.12	N. 12
5.	$1.2 \div 3 =$	A. 0.04	I. 4.0	E. 0.4
6.	$0.81 \div 9 =$	I. 0.09	W. 0.19	P. 9.0
7.	$0.6 \div 2 =$	O. 0.3	L. 3.3	D. 0.03
8.	$3.5 \div 5 =$	B. 0.07	C. 0.6	T. 0.7
9.	$0.42 \div 7 =$	A. 0.6	O. 0.06	E. 0.07
10.	$0.08 \div 8 =$	D. 10.0	K. 1.0	S. 0.01
11.	$3.5 \div 7 =$	M. 0.5	R. 0.05	F. 5.0
12.	$0.27 \div 9 =$	L. 0.02	E. 0.03	C. 0.3

Where do cows go on a Saturday night?

To solve the riddle, match each circled letter above to its matching numbered line below.

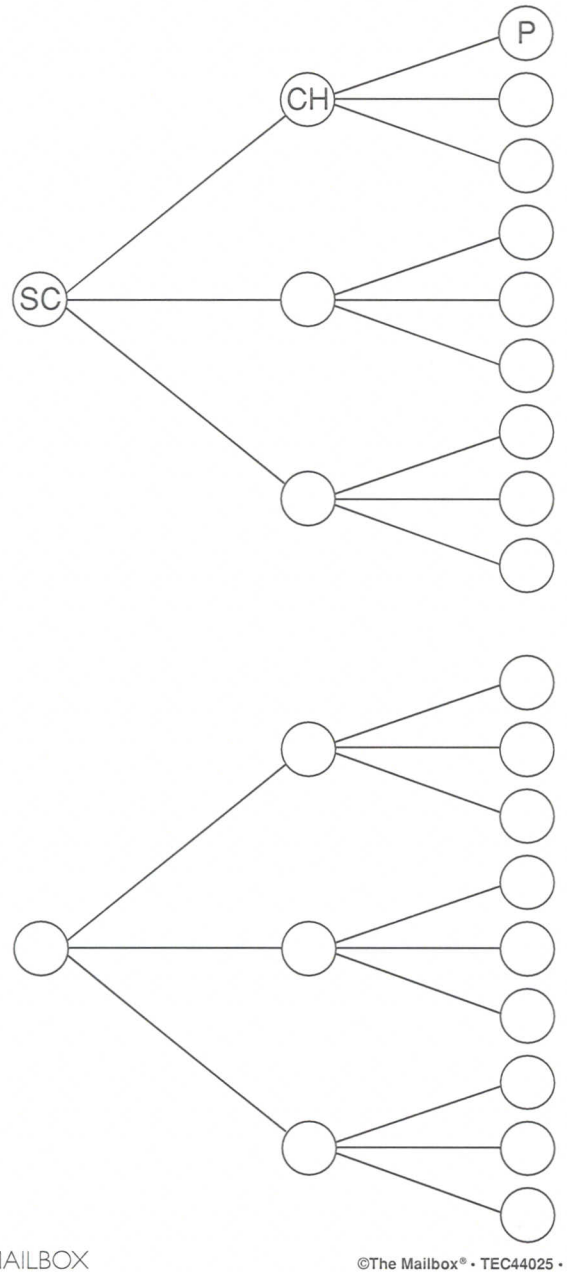
					"				-										"
4	7		8	1	5		11	3	9		2	6	12	10					

Name _____ Completing a tree diagram

What's Polly's Pleasure?

Add one flavor and one type of nut to each batch of cookie dough. Complete the tree diagram to find all the possible combinations of ingredients. The first one has been done for you.

Cookie Dough	Flavorings	Nuts
sugar cookie (SC)	chocolate (CH)	pecans (P)
animal-shaped cookie (AC)	cinnamon (C)	walnuts (W)
	butterscotch (B)	almonds (A)



Combinations

sugar cookie, chocolate, pecans

Name _____ Comparing and ordering numbers

Order the Supplies!

Write each set of numbers, with the letters, in order from least to greatest. If your answers are correct, the letters will spell the name of a school item. The first one has been done for you.

1. N—8,142 P 8,124
   E—8,126 E 8,126
   P—8,124 N 8,142

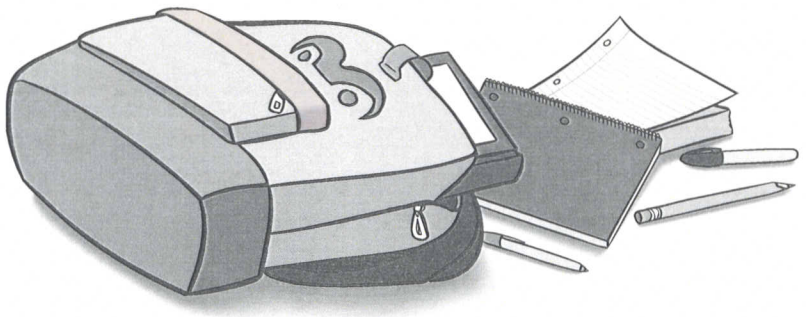
2. E—5,355 ___ _____
   G—5,330 ___ _____
   U—5,353 ___ _____
   L—5,333 ___ _____

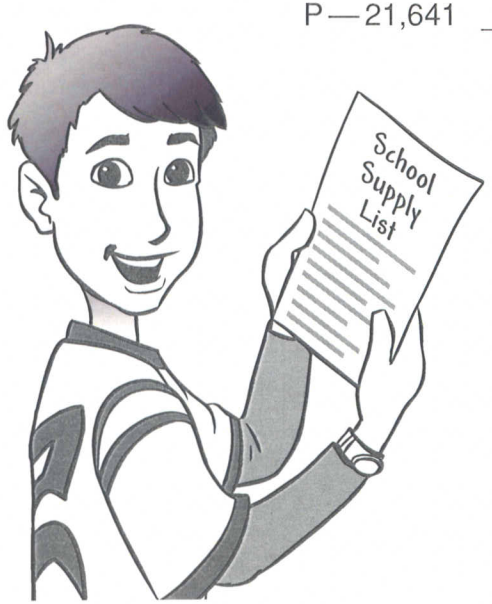
3. A—17,898 ___ _____
   E—18,309 ___ _____
   P—17,897 ___ _____
   R—18,903 ___ _____
   P—17,903 ___ _____

4. E—84,054 ___ _____
   L—83,605 ___ _____
   F—83,356 ___ _____
   R—84,057 ___ _____
   O—83,365 ___ _____
   D—83,615 ___ _____

5. R—108,074 ___ _____
   R—182,630 ___ _____
   E—182,361 ___ _____
   L—180,741 ___ _____
   U—180,740 ___ _____

6. L—21,688 ___ _____
   C—21,660 ___ _____
   E—21,649 ___ _____
   I—21,683 ___ _____
   N—21,650 ___ _____
   P—21,641 ___ _____





7. R—215,836 ___ _____
   I—214,726 ___ _____
   B—214,672 ___ _____
   E—215,823 ___ _____
   N—214,820 ___ _____
   D—215,283 ___ _____

8. N—143,105 ___ _____
   R—140,107 ___ _____
   C—104,108 ___ _____
   S—144,000 ___ _____
   A—142,106 ___ _____
   O—143,104 ___ _____
   Y—142,160 ___ _____

Name _____ Guess and check

LET'S GET STARTED!

Use each pair of numbers in the number bank to complete the problems.

Number Bank

72 and 4
55 and 89
67 and 6
65 and 47
84 and 78
160 and 10
257 and 413
99 and 912
4 and 367
20 and 500

Welcome!
Please find your seat.

A.
$$\begin{array}{r} \square\square \\ +\ \square\square \\ \hline 112 \end{array}$$

B.
$$\square\square \overline{)\ \square\square\square}$$
16

C.
$$\begin{array}{r} \square\square\square \\ +\ \square\square \\ \hline 1{,}011 \end{array}$$

D.
$$\square\square \overline{)\ \square\square\square}$$
25

E.
$$\begin{array}{r} \square\square\square \\ -\ \square\square\square \\ \hline 156 \end{array}$$

F.
$$\begin{array}{r} \square\square \\ -\ \square\square \\ \hline 34 \end{array}$$

G.
$$\begin{array}{r} \square\square\square \\ \times\ \square \\ \hline 1{,}468 \end{array}$$

H.
$$\begin{array}{r} \square\square \\ \times\ \square \\ \hline 288 \end{array}$$

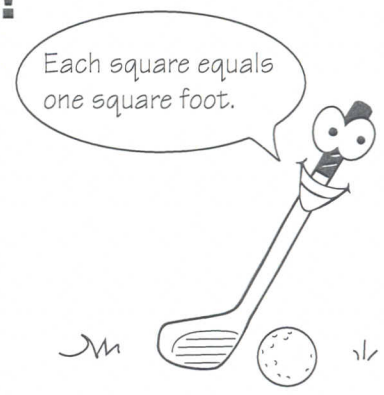
I.
$$\begin{array}{r} \square\square \\ +\ \square\square \\ \hline 162 \end{array}$$

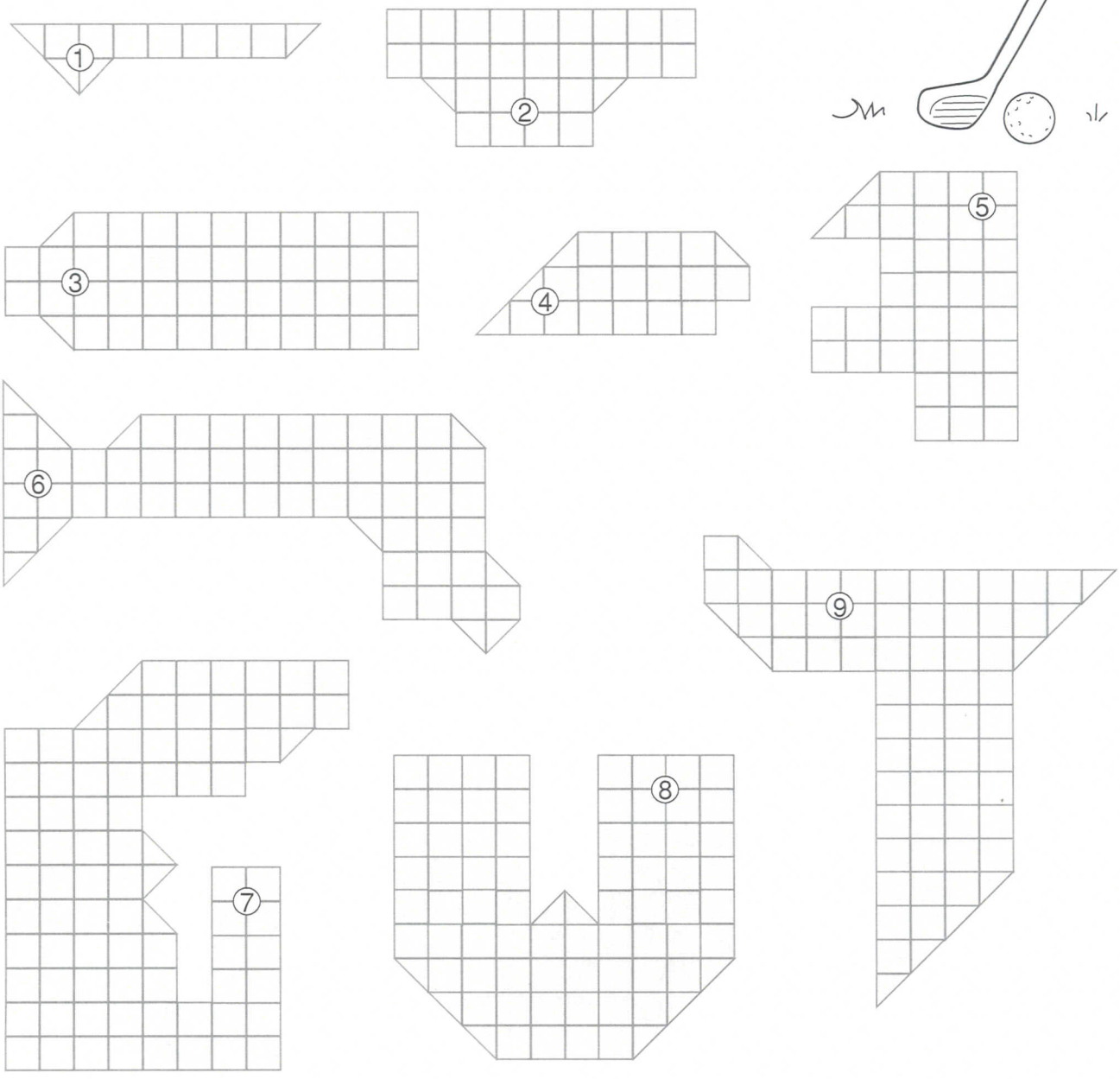
J.
$$\begin{array}{r} \square\square \\ \times\ \square \\ \hline 402 \end{array}$$

Name _____ Area of irregular shapes

Carpet the Course!

Find the area of the playing surface of each hole on the miniature golf course below (Hint: Count the squares.) Write your answer on the figure.





10. What is the total area of all nine holes? _____

    If carpet sells for $7.38 per square yard, how much would it cost to carpet all nine holes? (Hint: 1 sq. yd. = 9 sq. ft.) _____

Name _____

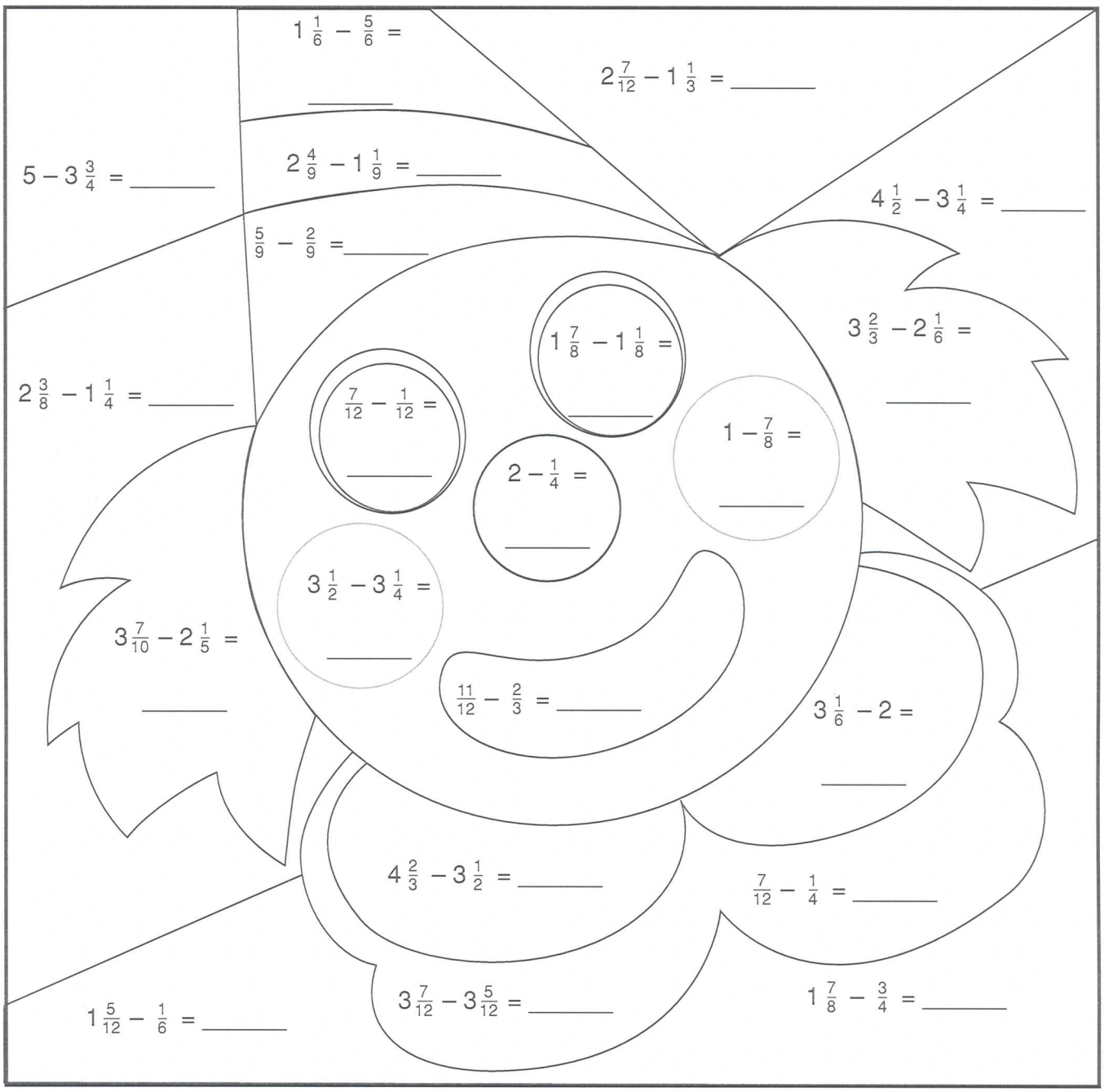
Subtracting fractions and mixed numbers with like and unlike denominators

Funfair Friend

Subtract.
Write your answers in simplest terms.
Then color by the code.

Color Code

$\frac{1}{8}$ or $\frac{1}{4}$ = red		$1\frac{1}{8}$ or $1\frac{1}{4}$ = yellow	
$\frac{1}{3}$ or $\frac{1}{6}$ = blue		$1\frac{1}{3}$ or $1\frac{1}{6}$ = green	
$\frac{1}{2}$ or $\frac{3}{4}$ = black		$1\frac{1}{2}$ or $1\frac{3}{4}$ = orange	



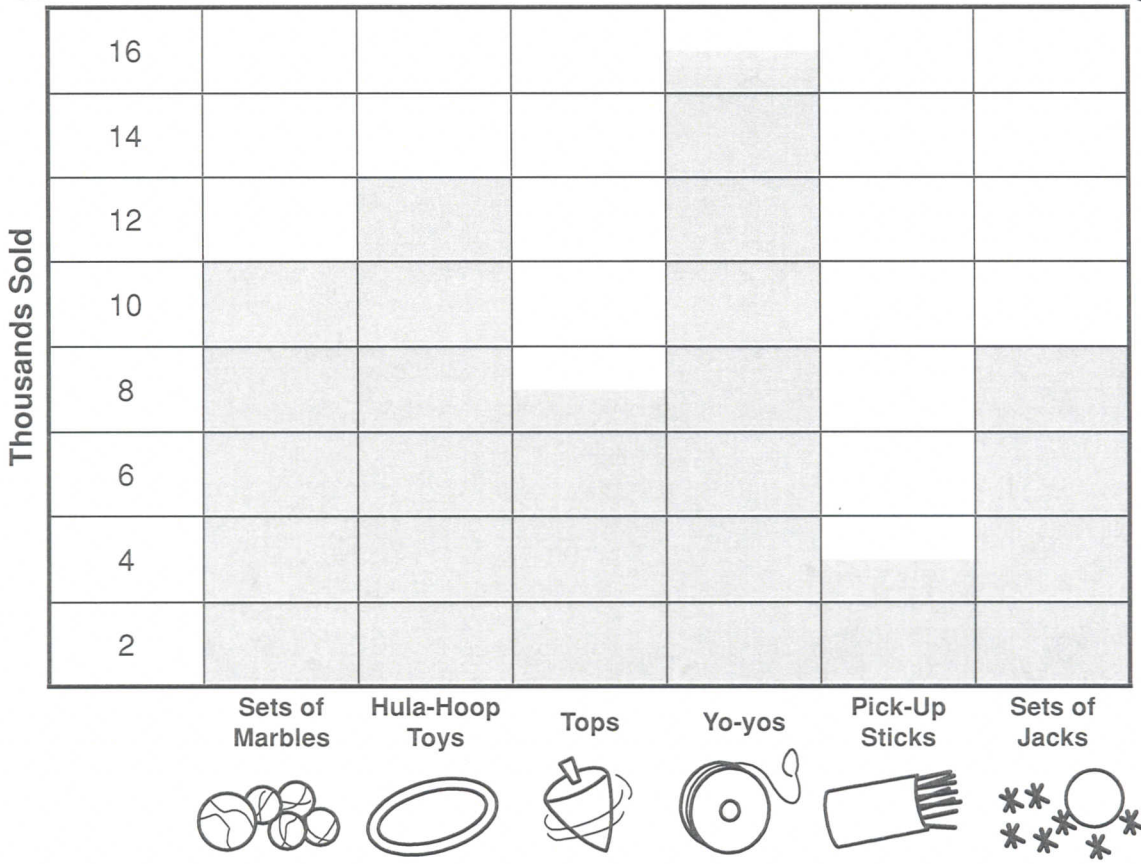
Note to the teacher: To complete this page, each child will need crayons in the following colors: red, blue, black, yellow, green, and orange.

Name _____ Reading a bar graph

What's Up With Old-Time Toys?

Use the graph to answer the questions.

Old-Time Toys Year-End Sales



1. What was the company's best seller? _____
2. What was the company's poorest seller? _____
3. List the toys in order of sales from best to poorest. _____

   _____
4. Would you suggest that any of the toys be removed from the sales list? Explain. _____

   _____
5. Using the data shown on this graph, what suggestions would you make to improve sales for next year? _____

   _____

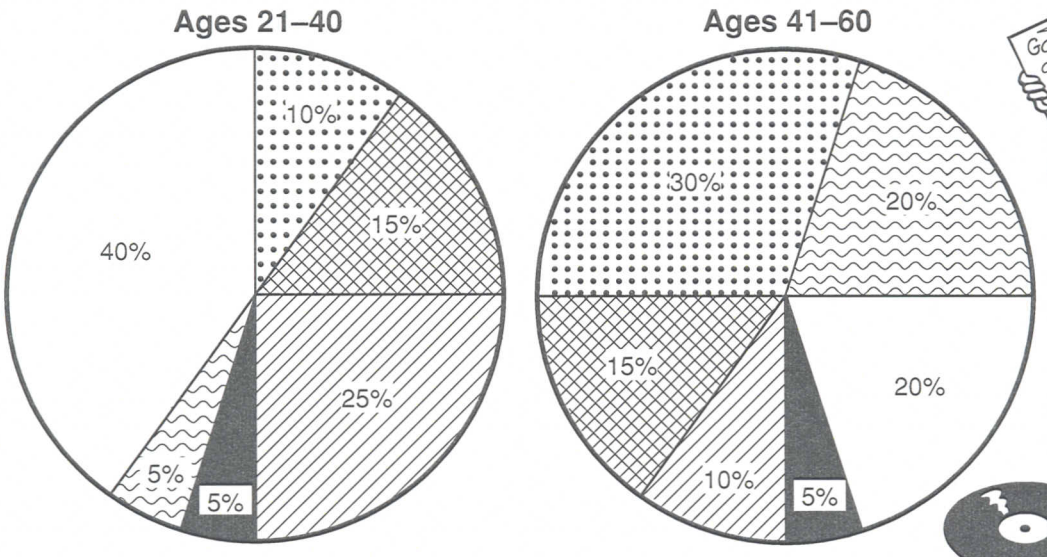
   _____

Name _____ Reading circle graphs

Oldies and Goldies

Use the graphs to answer the questions.

Favorite Musical Artists or Groups



Key

- Melvis Kresley
- The Bowling Stones
- Briana Moss and the Extremes
- The Four Fellas
- Buck Berry
- Other

1. What was the most popular artist or group with the 21- to 40-year olds?

   _____

2. What was the most popular artist or group with the 41- to 60-year olds?

   _____

3. What percent of people age 21–40 liked the Bowling Stones best? _____
4. What percent of people age 41–60 liked the Four Fellas best? _____
5. Which musical artist or group was liked by the same percentage of people in both groups?

   _____

6. Which two artists or groups together got half the votes of the ages 21–40 group?

   _____

7. Which two artists or groups together got 25% of the votes in the ages 41–60 group?

   _____

8. Which artist or group was twice as popular with the younger voters as with the older voters?

   _____

Groovy Graphs Minibooklet

Directions:

1. Choose four questions from the list.
2. Ask ten friends or family members to answer the questions. Record their answers.
3. Show each set of data on a different graph below.
4. Cut out the booklet pages. Staple the pages inside a folded strip of construction paper. Then decorate the cover.

Questions

1. What is your favorite type of music?
2. What musical instrument would you most like to learn to play?
3. What is your favorite time of day to listen to music?
4. How often do you attend live music concerts?
5. Do you prefer to listen to music on a CD player, an MP3 player, or a radio?
6. About how many hours per day do you listen to music?

Picture Graph

_____
title of graph

☐ = symbol

1

Bar Graph

_____
title of graph

2

Line Graph

_____
title of graph

3

Circle Graph

_____
title of graph

Key

4

Note to the teacher: To complete this page, each child will need scissors, crayons, a 3" x 8" strip of construction paper folded in half, and access to a stapler.

Name _____

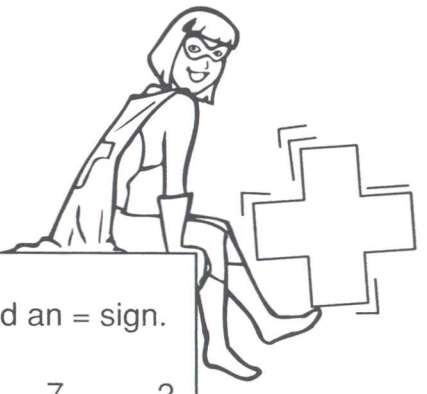
Basic operations:
guess-and-check, using a calculator

What's Your Sign?

Directions: Follow the directions in each box to create true number sentences. Use a calculator to help you.

Example:
Add a + sign and an = sign:
3 4 2 8 6 2

Solution:
3 4 + 2 8 = 6 2



1. Add a + sign and an = sign.

a. 6 8 5 9 1

b. 1 7 9 2 6

c. 6 3 2 7 9 0

d. 5 8 2 7 8 5

e. 8 6 9 5 1 8 1

2. Add a – sign and an = sign.

a. 4 7 9 3 8

b. 6 2 7 5 5

c. 9 1 1 9 7 2

d. 1 0 6 8 9 8

e. 1 4 3 5 6 8 7

3. Add a x sign and an = sign.

a. 9 8 7 2

b. 1 6 5 8 0

c. 4 2 4 9 6

d. 5 4 7 3 7 8

e. 1 7 2 1 3 5 7

4. Add a ÷ sign and an = sign.

a. 1 8 6 3

b. 5 6 7 8

c. 6 0 4 1 5

d. 1 2 0 1 0 1 2

e. 4 3 5 1 5 2 9

5. Add either a +, –, x, or ÷ sign and an = sign.

a. 7 2 1 2 6

b. 4 6 3 9 7

c. 9 5 7 6 6

d. 7 1 4 9 8

e. 2 7 2 5 2

6. Add *two* signs and an = sign. Add parentheses if needed. The first one is done for you.

a. (6 x 8) + 5 = 5 3

b. 7 3 6 6 0

c. 9 5 8 1 2

d. 2 0 5 3 7

e. 5 6 3 9 0

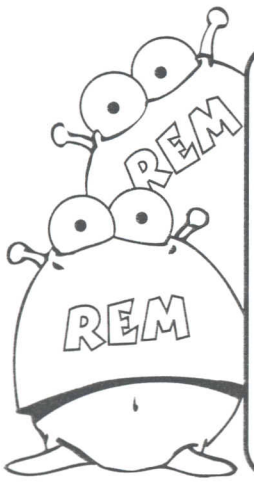
Bonus Box: On the back of this sheet, write a number sentence that could be added to one of the boxes above. Challenge a classmate to fill in your sentence with the correct sign (or signs).

Name _____ Interpreting remainders

Those Pesky Rems!

Rems? That's short for remainders! Sometimes the answer to a problem is a quotient with a remainder. What exactly do you do with that remainder? Does it make sense to show it in your answer? To help you decide, read the problem again. A remainder is usually shown in one of four ways.

Read the following problems. Each problem's quotient is 1 R2. But in each problem, the remainder is interpreted in a different way.

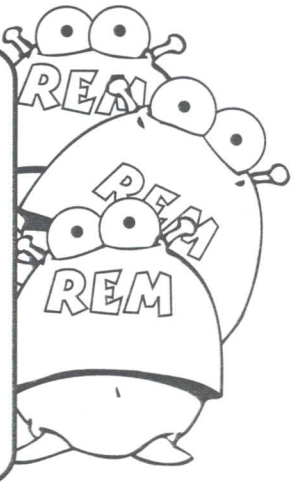


A. A bag holds 5 moon rocks. Nanu put 7 rocks into bags. How many bags did she use? **$1\frac{2}{5}$ bags** (Show the answer as a mixed number.)

B. A bag holds 5 moon rocks. Nanu has 7 rocks to put into bags. How many bags does she need? **2 bags** (Round the quotient up.)

C. A bag holds 5 moon rocks. Nanu put 7 rocks into bags. How many bags did she fill? **1 bag** (Round the quotient down.)

D. A bag holds 5 moon rocks. Nanu has 7 rocks to put into bags. After filling one bag, how many rocks will she have left over? **2 rocks** (The remainder is the answer.)



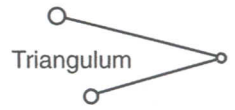
Directions: Solve each problem. Then write how you interpreted the remainder. The first one has been done for you.

1. There are 35 Rems waiting to take shuttles to the planet Noo. Each shuttle holds 8 Rems. How many shuttles are needed to take everyone to Noo?
   5 shuttles 35 ÷ 8 = 4 R3 Round up.
2. Each shuttle makes 7 stops along the 59 light-year journey. The stops are equally spaced along the route. How far apart are the stops? _____
3. On the planet Noo, a souvenir costs $0.09. How many souvenirs can Nanu buy with $1.10? _____
4. There are 29 Rems who want to take the next return flight. A shuttle holds 8 Rems. How many Rems won't be able to take this flight? _____
5. A shuttle flies 5 days a week. It travels a total of 42 light-years. What is the average number of light-years that a shuttle flies each day? _____
6. Nanu has 75 tokens to ride the shuttle. Each trip costs 8 tokens. How many trips can Nanu take? _____
7. Nanu has $3.50. A shuttle token costs $0.09. How much money will she have left if she buys all the tokens she can? _____
8. There are 86 Rems lined up to board a shuttle. Each seat on the shuttle holds 5 Rems. How many seats are needed? _____

Bonus Box: Including yourself, how many students are in your class? Divide that number by any digit from 2 through 9 so that you have a remainder. Then, using that problem, write two division problems in which the remainder is interpreted differently.

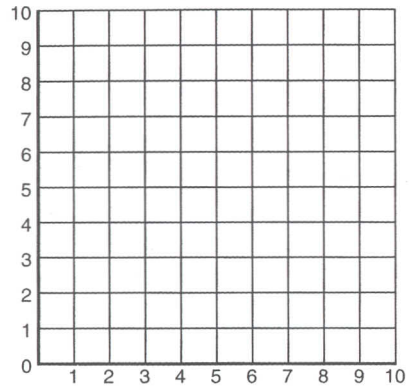
Name _____ Plotting and identifying ordered pairs

Seeing Stars

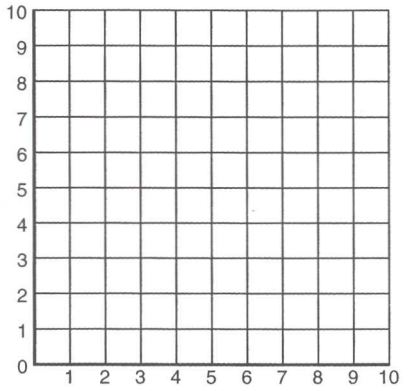


Dr. Luke Stargazer fell on his way to work this morning. Now he's having trouble plotting and identifying the constellations he needs for a lecture. Help him out!

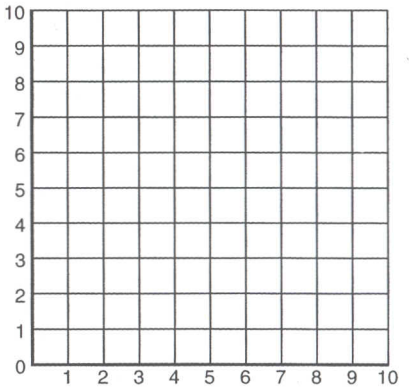
Directions: For problems 1–3, plot a point for each ordered pair. Connect the points on each grid, in order, to draw three different constellations. For problems 4–6, identify each constellation by writing the letter for each ordered pair in its matching blank.



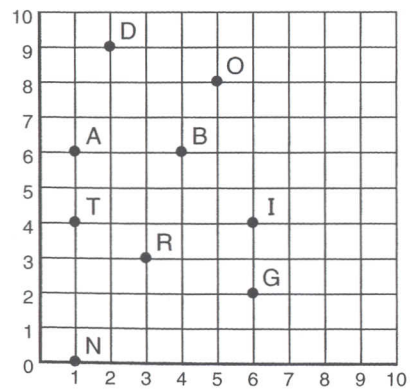
1. (8, 10), (8, 9), (9, 7), (9, 5), (8, 4), (7, 4), (5, 4), (4, 6), (3, 6), (2, 6), (1, 5), (2, 4), (4, 1), (5, 1), (5, 0), (4, 0), (4, 1)



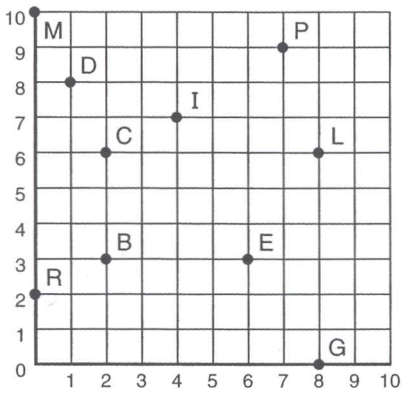
2. (0, 9), (1, 9), (3, 8), (4, 7), (4, 5), (8, 5), (9, 7), (4, 7)



3. (6, 1), (6, 2), (4, 4), (4, 6), (3, 6), (3, 7), (2, 7), (2, 8)

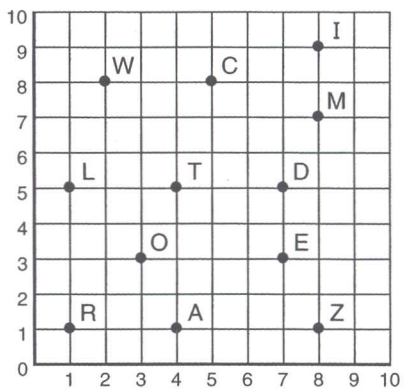


4. _____ _____ _____ _____ _____ _____
(2, 9) (3, 3) (1, 6) (6, 2) (5, 8) (1, 0)



5. _____ _____ _____
(2, 3) (4, 7) (8, 0)

_____ _____ _____ _____ _____ _____
(1, 8) (4, 7) (7, 9) (7, 9) (6, 3) (0, 2)



6. _____ _____ _____ _____ _____ _____ _____
(1, 5) (4, 1) (5, 8) (7, 3) (1, 1) (4, 5) (4, 1)

Bonus Box: To find out another name for the constellation in problem 6, write the letters for the following ordered pairs: _____ _____ _____ _____ _____ _____.
(1, 5) (8, 9) (8, 1) (4, 1) (1, 1) (7, 5)

The Value of Words

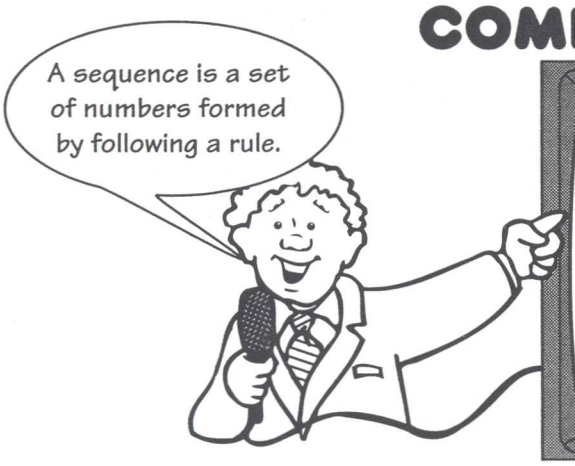
In the value box, each letter of the alphabet has been given a dollar value. To find the value of a word, add the values of all the letters. For example, the word "school" would be worth $72 (19 + 3 + 8 + 15 + 15 + 12 = 72). Write words with appropriate values in each of the boxes below.

$10 Words	$20 Words
$50 Words	**$100 Words**
$101–$150 Words	**$151–$200 Words**

VALUE BOX	
A	= $1
B	= $2
C	= $3
D	= $4
E	= $5
F	= $6
G	= $7
H	= $8
I	= $9
J	= $10
K	= $11
L	= $12
M	= $13
N	= $14
O	= $15
P	= $16
Q	= $17
R	= $18
S	= $19
T	= $20
U	= $21
V	= $22
W	= $23
X	= $24
Y	= $25
Z	= $26

Name _____ Sequences

COMING UP NEXT...



- In an **arithmetic sequence**, you add or subtract the same number to find the next term.
  Example: 5, 8, 11, 14, 17,... (Add 3.)
- In a **geometric sequence**, you multiply or divide by the same number to find the next term.
  Example: 3, 6, 12, 24, 48,... (Multiply by 2.)
- Some are neither arithmetic nor geometric sequences. The terms follow each other according to a rule and form a pattern.
  Example: 2, 2, 4, 6, 10, 16,... (Add the two preceding terms to get the next term.)

Complete each sequence below by supplying the missing terms. Then write the rule for the pattern. Use the back of this page if you need more space. The first one has been done for you.

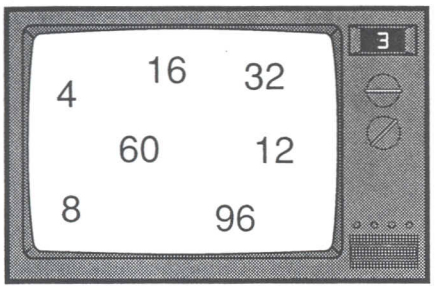
1. 6, 13, 20, 27, 34, 41,...
   Add 7.
2. 2, 6, _____, 54, 162, _____,...
3. 9, _____, 29, 39, _____, 59,...
4. 4; 20; 100; 500; _____; _____;...
5. 2, 7, 17, 22, 32, 37, _____, _____,...
6. $\frac{3}{4}$, _____, $\frac{27}{64}$, $\frac{81}{256}$, _____, $\frac{729}{4096}$,...
7. 1, 3, _____, 10, 15, _____,...
8. _____, 44, 66, 88, _____, _____,...
9. 2, 4, 4, 6, 6, 6, _____, _____, 8, _____,...
10. 4,000; 2000; _____; 500; _____;...
11. 12, 23, 34, 45, 56, _____, _____,...
12. 1; 6; 36; 216; _____; _____;...
13. 100, 10, _____, 20, 80, 30, 70, _____,...
14. 96, 48, 24, 12, _____, _____,...
15. $\frac{1}{2}$, $1\frac{1}{2}$, _____, 3, $3\frac{1}{2}$, _____, 5,...
16. 1, 5, 10, _____, 50, 1.00, _____,10.00,...
17. A, 1, Z, B, 2, Y, _____, _____, _____,...
18. 1, J, 2, F, 3, M, 4, A, _____, _____,...
19. 1.2, 2.6, 3.18, 4.54, 5.162, _____, _____,...
20. $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, _____, $1\frac{1}{4}$, _____, $1\frac{3}{4}$ ...

Bonus Box: 3, 3, 5, 4, 4, 3, 5, 5, 4, _____. What number goes in the blank? Describe the pattern. (Hints: It is neither an arithmetic nor a geometric sequence. Write the number words for 1–10.)

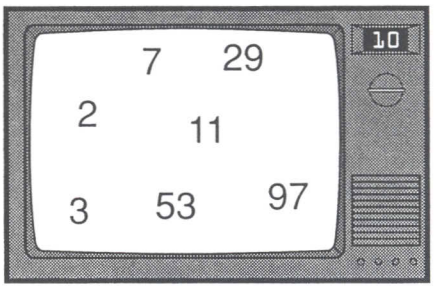
Name _____ Recognizing patter

NETWORK NUMBERS

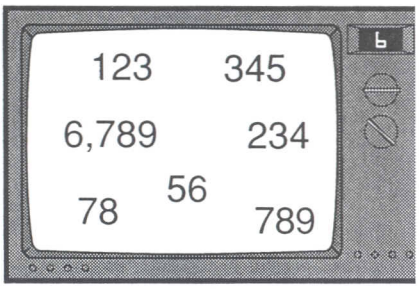
Welcome to Channel 4—the network that shows only multiples of 4! Then tune in to the other networks shown below. Each one includes a pattern—some easier to recognize than others. Study the numbers on each screen. What do they have in common? Do you see a pattern? Then on the line below each screen, describe the pattern of the set of numbers. Use the back of this page if you need more space. The first one is done for you.



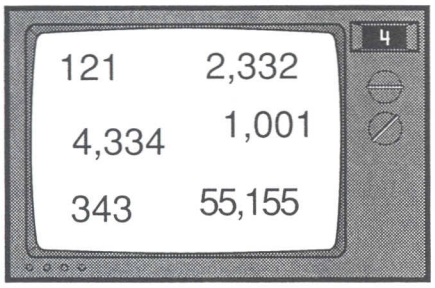
1. multiples of 4



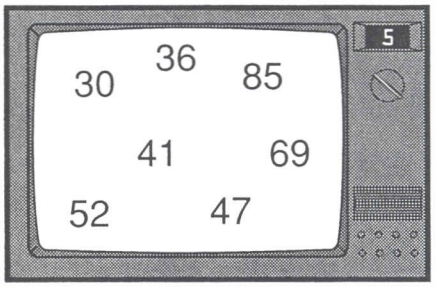
2. _____



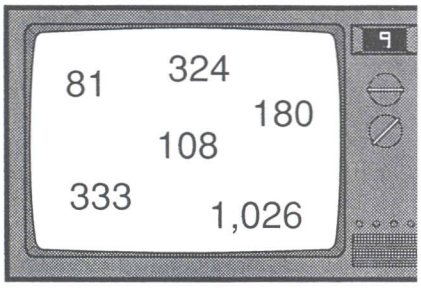
3. _____



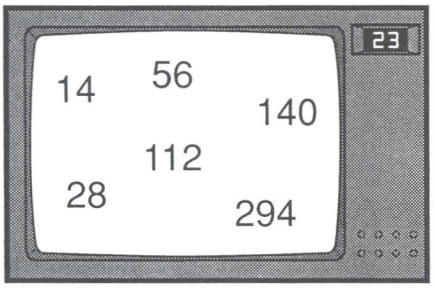
4. _____



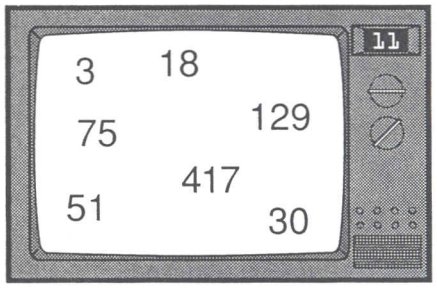
5. _____



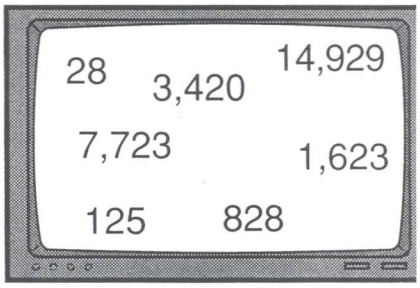
6. _____



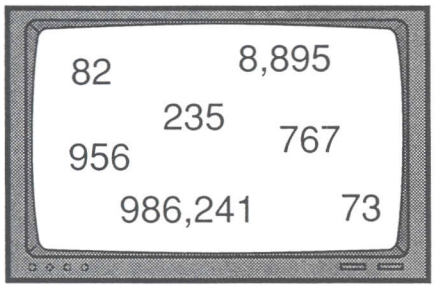
7. _____



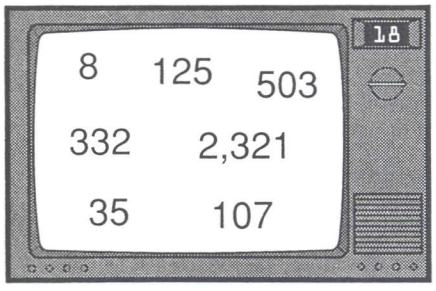
8. _____



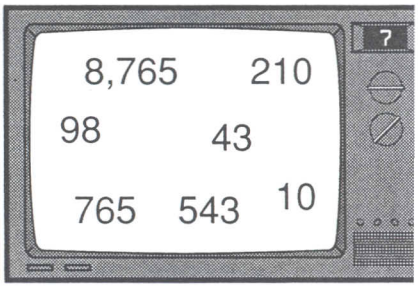
9. _____



10. _____



11. _____



12. _____

Bonus Box: Each of the following numbers belongs on one of the TV screens above: 5, 25, 70, 100, 145, 320, 321, 321, 393, 567, 611, and 8,100. Write each number on its matching screen. Use each number once.

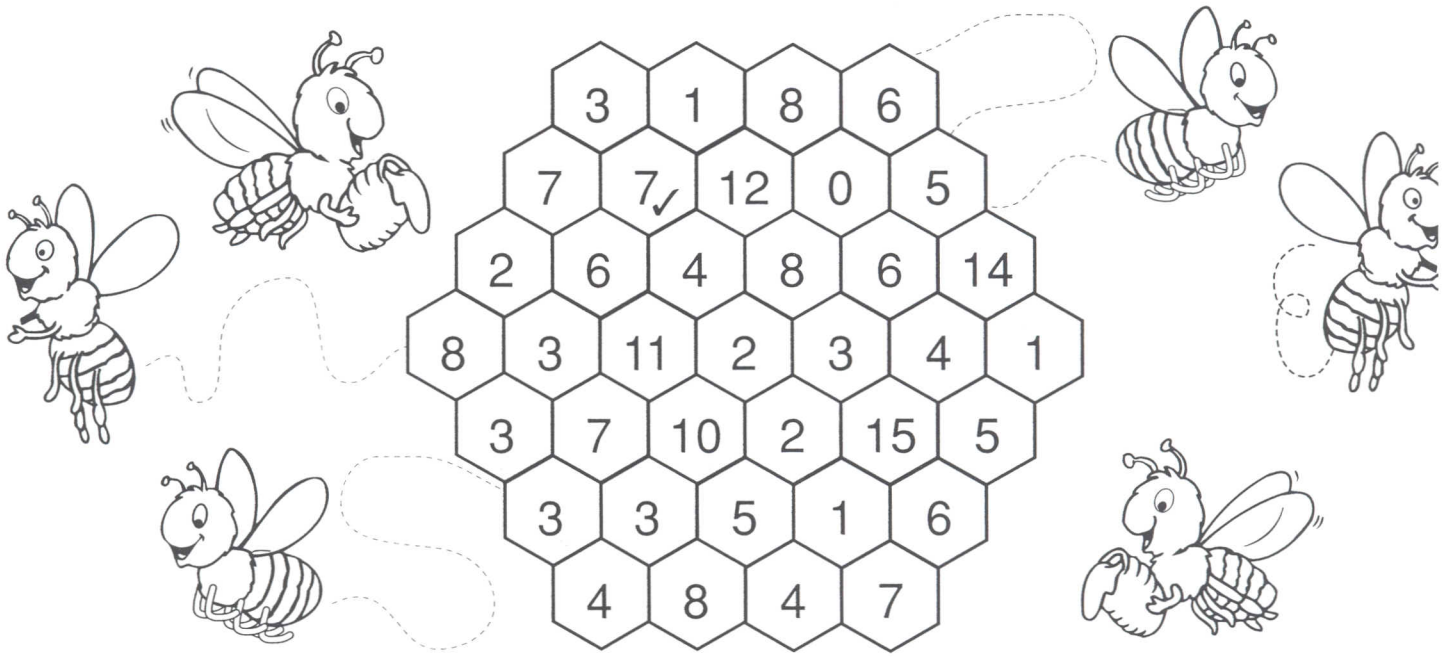
Name _____ Addition, guess and check

The Honeycomb Hunt

September is a sweet time to practice addition! That's because it's National Honey Month. More than 220 million pounds of honey is produced by honeybees and beekeepers in the United States each year. That's a heap of honey!

Inside the honeycomb below, you won't find any honey. But you should find 11 groups of seven hexagons each whose numbers add up to 40.

Directions: Find a hexagon that is completely surrounded by numbers. Add that number and the six other numbers that surround it. If the sum is 40, write that number sentence on a blank below. An example has been done for you (see the hexagon with a ✓). Now buzz your way through the honeycomb and find ten more sets of addends that equal 40. (Hint: Mark an X on a center number that is not part of a set that equals 40.)



7 + 3 + 1 + 12 + 4 + 6 + 7 = 40

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____

Bonus Box: Try this tricky teaser: Use the number 40 three times in a number sentence so that the answer is 101. You may use any of the four operations and creatively arrange the 40s any way you choose. You may not use any other numbers.

Name _____ National Physical Fitness and Sports Mon

Finding mean, median, mode, and rang

Shoe-Size Statistics

Archie Goodfoot is buying new shoes for each athlete playing a sport at Fit Feet sports center. He needs to know the mean, median, mode, and range of each team's shoe sizes. Use a calculator to help him get the data. Round your answers to the nearest tenth.

Basketball

13 9 5 8.5
8.5 10.5 7.5
13 8 8.5 8.5
7 10

Mean = _____
Mode = _____
Median = _____
Range = _____

Track

5.5 6.5 4
3.5 4
6.5 8
6 6
6.5 3.5

Mean = _____ Median = _____
Mode = _____ Range = _____

Softball

8
4 3 6
4 9.5 7.5 10
7.5 4 4 4.5
7 9.5 3
4 6.5

Mean = _____
Mode = _____
Median = _____
Range = _____

Baseball

6 6.5 5 9.5 4.5 7.5 10 7.5 5.5 5 12.5 3 7.5 4.5 3.5

Mean = _____
Mode = _____
Median = _____
Range = _____

Tennis

4 7.5 6
9.5 8.5 10
5.5 13 4
10 10

Mean = _____
Mode = _____
Median = _____
Range = _____

Golf

5.5 5
3 4
4.5 5
4 9 5

Mean = _____
Mode = _____
Median = _____
Range = _____

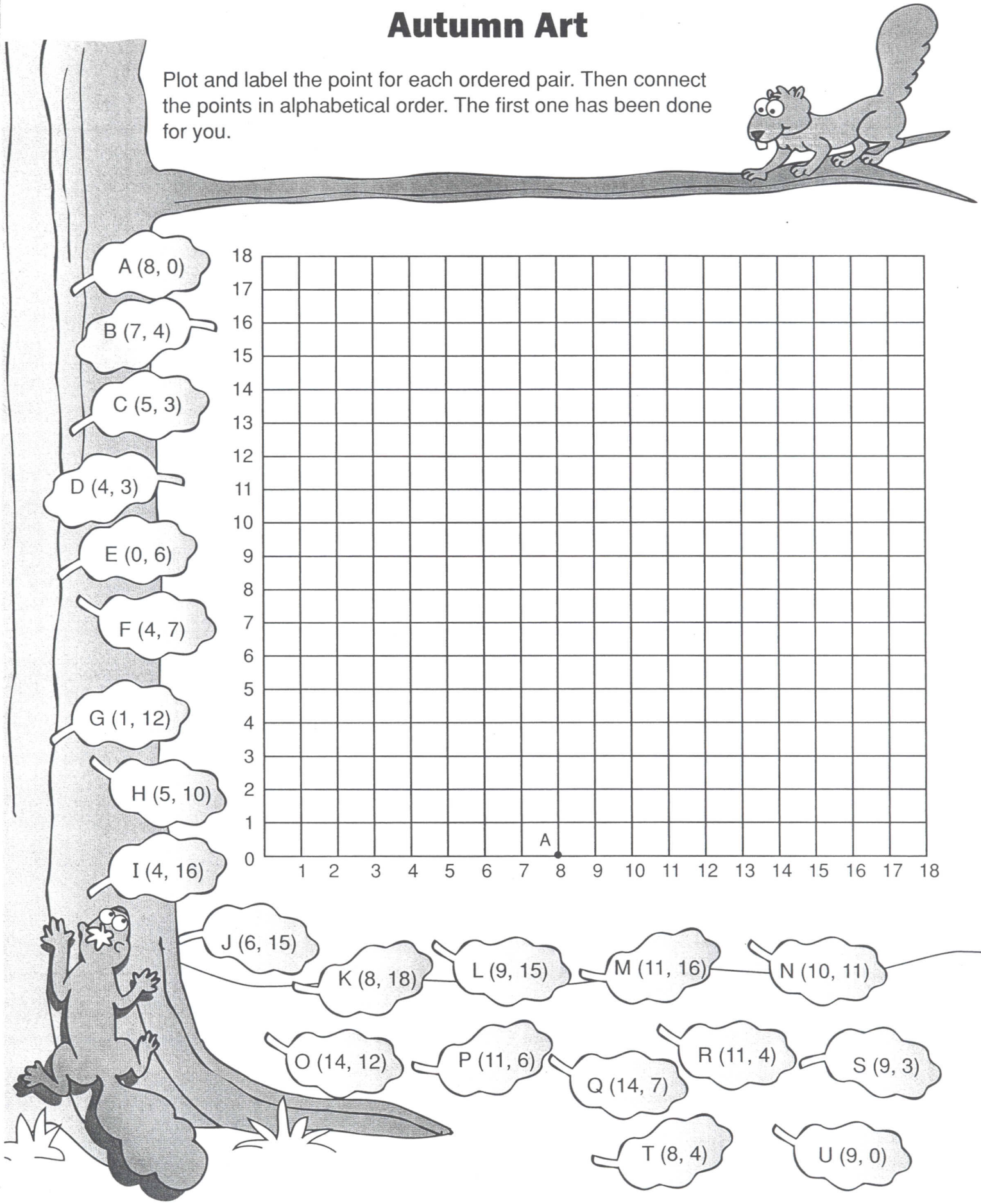
Bonus Box: Record the shoe size of six classmates and your own. Find the mean, median, mode, and range of the sizes. Is your shoe size above or below the mean?

Note to the teacher: Each student will need a calculator to complete this page.

Name _____ Coordinate graphing

Autumn Art

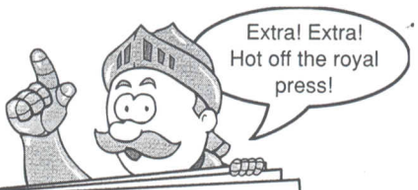
Plot and label the point for each ordered pair. Then connect the points in alphabetical order. The first one has been done for you.



Name _____ Rounding whole numbers

Rounded Royal Headlines

Read each headline.
Decide which place value the number in it was rounded to.
Write a sample number that can be rounded to the headline number. One has been done for you.



1. **$12,000 Painting Stolen From Castle**

Rounded to the nearest thousand
Sample number 11,958

2. *King's Carriage Found 40 Miles Away*

Rounded to the nearest _____
Sample number _____

3. *Prince's Caravan to Travel 5,400 Miles*

Rounded to the nearest _____
Sample number _____

4. Baker Makes 1,200 Loaves of Bread for Feast

Rounded to the nearest _____
Sample number _____

5. Princess Gives Knight $386 for Killing Dragon

Rounded to the nearest _____
Sample number _____

6. Castle Needs Homes for 200 Cats

Rounded to the nearest _____
Sample number _____

Read each sentence. Decide which place value to round the number to. Then write a headline that includes the rounded number.

7. Friday's tournament will have 347 jousters.
Round to the nearest _____.

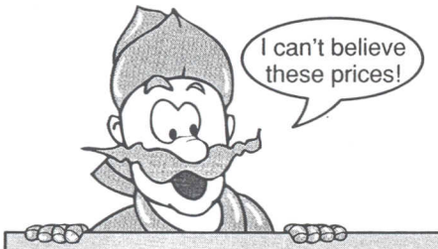
_____
_____
_____

8. The castle's new stone tower is 302 feet tall.
Round to the nearest _____.

_____
_____
_____

Name_____ Rounding to a given place value

Shocked Shopper



Follow the directions to estimate the cost of the items in each bag or box.

C	$1,300	A	$4,000
A	$12	L	$200
T	$4,500	E	$5,000
W	$40	V	$30
O	$800	I	$2
S	$3,000	F	$1,400
S	$1,800	O	$100
T	$4	E	$3
O	$90	R	$1,000
L	$1	H	$60
D	$70	S	$2,000
S	$20	R	$170

T	$900

Round to the nearest dollar.

Sweet Stuff Candy

1. lollipop _____
   $2.87
2. stick candy _____
   $0.55
3. gummy sours _____
   $4.25
4. candy apple _____
   $2.15
5. chocolate bar _____
   $12.45

Round to the nearest ten.

Cocoa's Closet

6. purse _____
   $23
7. shoes _____
   $38
8. skirt _____
   $65
9. jeans _____
   $88
10. jacket _____
    $174

Round to the nearest hundred.

Electric Alley Electronics

11. stereo _____
    $224
12. CD player _____
    $87
13. computer _____
    $979
14. wide-screen TV _____
    $1,331

Round to the nearest thousand.

Gems & More Jewelry

15. watch _____
    $1,769
16. necklace _____
    $4,499
17. bracelet _____
    $849
18. earrings _____
    $4,899
19. ring _____
    $2,519

What fun things are inside the world's largest mall in Edmonton, Alberta, Canada?

To find out, look at the shield above. Write the letter of each problem's answer in its matching numbered blank below. Some letters will not be used.

___	___	___	___	___	___		___	___	___	___	___	___	___
17	12	2	11	18	10		14	9	5	6	3	1	17

and

___	___	___	___	___	___		___	___	___	___	___	___	___
7	16	3	18	13			19	11	4	8	18	15	