## Multiplying \& Dividing page 1 of 2

1 Complete the multiplication facts.

| 5 | 2 | 1 | 5 | 3 | 8 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\times 6$ | + 7 | $\times 2$ | $\times 7$ | $\times 5$ | +5 | $\begin{array}{r} \\ \times 9 \\ \hline\end{array}$ |
| 30 | 14 | 2 | 35 | 15 | 40 | 45 |
| 4 | 5 | 9 | 2 | 10 | 10 | 4 |
| $\times 2$ | +2 | $\times 2$ | $\times 5$ | $\times 3$ | $\times 5$ | +6 |
| 8 | 10 | 18 | 10 | 30 | 50 | 24 |
| 10 | 1 | 2 | 7 | 6 | 10 | 3 |
| $\times 0$ | +88 | $\times 3$ | $\times 4$ | $\times 6$ | +8 | +9 |
| 0 | 8 | 6 | 28 | 36 | 80 | 27 |

2 Complete the division facts.
$100 \div 10=$ $\qquad$
$16 \div 2=$ $\qquad$ $25 \div 5=5$
$\qquad$
$\qquad$
$12 \div 2=$ $\qquad$
$3 \div 1=$ $\qquad$
$20 \div 2=$ $\qquad$

3 CHALLENGE Use what you know about basic fact strategies to solve these multiplication problems.

| 24 | 42 | 329 | 13 | 1,946 | 500 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $\times 5$ |  |  |  |  |  |
| 120 | $\times \quad 5$ |  |  |  |  |
| 210 | $\times 0$ | $\times 10$ | $\times 1$ | $\times 2$ | $\times 6$ |
| 130 | 1,946 | 1,000 | 150 |  |  |

4 a Would the product of $3,407 \times 10$ be odd or even? $\qquad$
b How do you know?
Explanations will vary. Examples:

- The product of any odd number and any even number is always even.
- The product is 34,070 . All whole numbers with a zero in the ones place are even.


## Multiplying \& Dividing page 2 of 2

5 Will is helping his mom get ready for a party. His mom wants Will to put flowers in jars to put on the tables. He needs to put 7 flowers in each jar. He has 45 flowers.
a How many jars can he fill? Show all your work.
6 jars
Work will vary.
b How many flowers did Will have left over?
Will has 3 flowers left over.


6 Mai is buying gifts for her 4 friends. She wants to get each friend a bracelet that costs $\$ 4$ and a mechanical pencil that costs $\$ 3$.
a How much money will she spend in all? Show all your work.
\$28
Work will vary.
b Write an equation to represent this problem. Use the letter $m$ to stand for the amount of money Mai spent in all.

Equations will vary.
Example: $(4+3) \times 4=m$
7 ChALLENGE Mai changed her mind and decided to get each of her 4 friends a comic book that cost $\$ 3.99$ and an eraser that cost 994 . How much money did she spend in all? Show all of your work.
\$19.92
Work will vary.

## Rounding to the Nearest Ten page 1 of 2

You can use a number line to help round to the nearest ten. If a number is closer to the next larger multiple of 10 , round up. If it is closer to the next smaller multiple of 10 , round down.

If the digit in the ones place is 5 or higher, round up. If the digit in the ones place is less than 5 , round down.
ex Round 127 to the nearest ten. Use the number line to help.


$$
127 \underline{130}
$$

1 Round each number to the nearest ten. Use the number line to help.

a $78 \xrightarrow{80}$
b $75 \quad 80$
C $74 \underline{70}$

2 Round each number to the nearest ten. Use the number line to help.


3 Round each number to the nearest ten. (Look at the digit in the ones place. Think about a number line if it helps you.)
a $43 \underline{40}$
b $85 \xrightarrow{90}$
C $18 \xrightarrow{20}$
d $282 \underline{280}$
e $617 \underline{620}$
f $539 \quad 540$

## Rounding to the Nearest Ten page 2 of 2

4 The third and fourth graders at Fernwood School are going on a field trip. They will fill 3 school buses. Each bus holds 52 passengers. How many people will be going on the field trip? Show your work.

156 people
Work will vary.


5 challenge Mr. Kelly bought 8 dozen hot dogs for the third grade picnic. His pet dog broke into the groceries and ate 14 hot dogs. If each picnic guest eats one hot dog, how many people can still have a hot dog? Show your work.

82 people
Work will vary.

## Round \& Round page 1 of 2

1 Rounding numbers can help you make good estimates. Round each pair of numbers to the nearest ten and then add the rounded numbers to estimate the sum.

| Numbers to Add Rounded to the Nearest Ten Estimated Sum <br> ex $237+349$ $240+350$ 240 |  |  |
| :--- | :---: | :---: |
| The sum of 237 and 349 is about equal to 590 |  |  |


| Numbers to Add | Rounded to the Nearest Ten | Estimated Sum |
| :--- | :---: | :---: |
|  | $170+120$ | 170 |
| a $168+122$ | $\frac{+120}{290}$ |  |


| Numbers to Add | Rounded to the Nearest Ten | Estimated Sum |
| :--- | :---: | :---: |
| b $147+618$ | $150+620$ | 150 |
|  | $\frac{+620}{770}$ |  |

2 Estimate for each story problem below. Explain your estimation using numbers, sketches, or words.
a Ravi likes to ride on the merry-go-round. Each ride lasts for 49 seconds. If Ravi takes 2 rides, about how long does he spend on the merry-go-round?

About 100 seconds
Work will vary.
b Each ride on the merry-go-round costs 97 cents. If Ravi rides the merry-goround 4 times, about how much does he have to pay?

> About \$4
> Work will vary.

## Round \& Round page 2 of 2

Show all your work when you solve these story problems.
3 Midge is a tiger shark and Bruce is a great white shark. Midge is 396 centimeters long and Bruce is 609 centimeters long. How many centimeters longer is Bruce than Midge?

213 cm
Work will vary.

4 Which equation does NOT describe the situation in problem 3?

- $609-396=c$
- $396+609=c$
$396+c=609$
$609-c=396$

5 CHALLENGE The greater roadrunner (a bird that runs better than it flies) can run 16 miles per hour. A frightened ostrich can run 3 times faster.
a How fast can a frightened ostrich run?

> 48 miles per hour
> Student work wil vary.
b How far can a frightened ostrich run in half an hour?

$$
\begin{aligned}
& 24 \text { miles } \\
& \text { Work will vary. }
\end{aligned}
$$

C Fill in the boxes to complete an equation to represent problem 5b.

$$
16 \times 3 \div 2=m
$$

## Rounding to Tens \& Hundreds page 1 of 2

## Note to Families

This worksheet gives students practice rounding to the nearest ten and hundred. Round numbers to the nearest ten by checking the digit in the ones place. If that digit is 5 or greater, round up to the next ten. If the digit is 4 or less, the digit in the tens place stays the same. When you round to the nearest hundred, check the digit in the tens place. If that digit is 5 or greater, round up to the next hundred. If that digit is 4 or less, the digit in the hundreds place stays the same.

1 Round the following numbers to the nearest 10.

| 32 | 30 | 378 | 380 | 87 | 90 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1,055 | 1,060 |  | 63 | 60 |  |

2 Round the following numbers to the nearest 100 .

| 213 | 200 | 347 | 300 | 59 |
| :--- | :--- | :--- | :--- | :--- |
| 408 | 400 | 2,665 | 2,700 |  |

3 Round the following:

|  | to the nearest $\mathbf{1 0}$ | to the nearest $\mathbf{1 0 0}$ |
| :--- | :---: | :---: |
| 26 | 30 | 0 |
| 493 | 490 | 500 |
| 1,845 | 1,850 | 1,800 |
| 802 | 800 | 800 |
| 199 | 200 | 200 |

## Rounding to Tens \& Hundreds page 2 of 2

Show all your work for these problems.
4 Andy's class wants to help poor families in Guatemala grow their own food. A \$35 donation to a relief organization will provide a family with the seeds and tools they need to build a vegetable garden.
a Mark the most reasonable estimate for how much it would cost to help 4 families build vegetable gardens:

- \$75.00
$\$ 100.00$
- $\$ 150.00$
- $\$ 200.00$
b What is the exact cost of seeds and tools for 4 family gardens through the relief organization?
\$140
Work will vary.

C If Andy's class raises $\$ 167$, how much money will be left over?
\$27
Work will vary.

5 CHALLENGE A donation of $\$ 75$ to the relief organization can bring a health counselor to a poor neighborhood in Indonesia to help mothers improve their children's health. Ms. Murray and Mr. Austin both have 30 students in their classes. If each child gives $\$ 5$, how many neighborhoods can they provide health counselors for?

## 4 neighborhoods

Work will vary.

## Two-Digit Addition, Card Collecting \& Shopping page 1 of 2

1 Add each pair of numbers. Show all your work.

| a $30+65=95$ | b $42+35=$ <br> Work will vary. | $\text { C } 46+38=84$ |
| :---: | :---: | :---: |
| $\begin{array}{\|l} \hline \mathbf{d} \\ \\ \\ \\ \\ +83 \\ \hline 135 \end{array}$ | $\begin{array}{r} 67 \\ +85 \\ \hline 152 \end{array}$ <br> Work will vary. | $\begin{array}{r} 94 \\ +\quad 76 \\ \hline 170 \end{array}$ |

2 Henry had 126 baseball cards. His cousin gave him 20 more cards. Then Henry gave his brother 58 cards. How many baseball cards does Henry have now? Show all your work.

88 cards
Work will vary.

## Two-Digit Addition, Card Collecting \& Shopping page 2 of 2

Show your work when you solve these problems.
3 DVD players are on sale for $\$ 84$. That's $\$ 35$ off the regular price. What is the regular price?
\$119
Work will vary.

4 ChALLENGE MP3 players cost $\$ 85$ each. Mark has a coupon that will take $\$ 15$ off the total if he buys two. If he uses his coupon, how much will Mark pay for two MP3 players?
\$155
Work will vary.

## Construction Paper, Scooters \& Snails page 1 of 2

1 Solve the subtraction problems. Show all your work.

|  | $67-28=39$ |  | b $83-37=46$ |
| :---: | :---: | :---: | :---: |
|  |  | Work | k will vary. |
| C | 92-54 = 38 |  | d $500-199=301$ |
|  |  | Work | k will vary. |

2 Mr. Jones needs 126 pieces of construction paper to do an art project with his students. He has a full pack with 50 sheets of paper and an open pack with some more sheets. How many more sheets of paper does he need to borrow from the teacher next door?
a Choose the information that will help you solve the problem.There are 24 students in the class.

- The open pack has 17 sheets of paper.
- Packs of construction paper cost $\$ 3$ each.

O He has 32 pencils.
b Solve the problem. Show all your work. Write your answer on the line at the bottom of the page.

## Work will vary.

Mr. Jones needs to borrow $\qquad$ 59 more sheets of paper.

## Construction Paper, Scooters \& Snails page 2 of 2

3 Angela wants to buy a scooter. She has saved $\$ 57$ from birthday money and $\$ 19$ more by doing gardening jobs for neighbors. The scooter costs $\$ 125$. How much more money does Angela need?
a Estimate the amount of money Angela still needs, and explain your thinking. How did you get your estimate?

## Student responses will vary.

b Which equation does not represent this problem? (The letter $m$ stands for money.)
. $\$ 57+\$ 19+m=\$ 125$

- $\$ 125-\$ 57-\$ 19=m$
- $\$ 125+\$ 57+\$ 19=m$
( $125-m=\$ 57+\$ 19$
C Figure out how much more money Angela actually needs to buy the scooter. Show your work.

$$
\$ 49
$$

> Work will vary.

4 challenge Lucy, a garden snail, laid 4 batches of eggs one summer. Each batch had 53 eggs, but 17 eggs from each batch didn't survive. How many of Lucy's eggs hatched into baby snails?
a Write an equation to represent this problem. Use the letter $s$ to stand for baby snails.

$$
(53-17) \times 4=s
$$

b Solve the problem. Show all of your work.
144 eggs hatched.

## Estimates \& Exact Answers page 1 of 2

1 Use estimation to answer each question yes or no.
a Sue has $\$ 346$ dollars. She wants to buy a bike and still have $\$ 150$ left. She found a bike that costs $\$ 189$. Can she buy it and still have $\$ 150$ left?

Yes
b Bruce decided to give away some of his 400 baseball cards. He wants to keep at least 150 of them. If Bruce gives one friend 167 cards and another friend 112 cards, will he have at least 150 left?

No
C Luis and Carlos are in a reading contest to see who can read the most pages. Luis wants to win by at least 150 pages. Carlos read 427 pages. If Luis reads 526 pages, will he win by at least 150 pages?

## No

2 Estimate and solve.
First, estimate the difference between the two numbers.
You could round them and then subtract, or you could think about what you have to add to the smaller number to get to the bigger number.
Then find the exact difference between the two numbers.
Check your answer with your estimate to be sure it makes sense: if it doesn't make sense, check your work or do it another way.

| Numbers to Subtract | Estimated Difference | Exact Difference |
| :--- | :---: | :---: |
| a |  |  |

(continued on next page)

## Estimates \& Exact Answers page 2 of 2

Show all your work when you solve these problems.
3 Angie's grandma lives in Cleveland, Ohio, and is going to drive to Minneapolis, Minnesota, to visit Angie and her family. The two cities are 752 travel miles apart, and it takes 12 hours to drive that far.
a Angie's grandma wants to do the drive in two days. If she drives the same amount each day, how many miles will she drive each day?

376 miles.
Work will vary.
b How many hours will she spend driving each day?
6 hours
Work will vary.

4 ChALLENGE Christy's family is driving from St. Louis, Missouri, to Boston, Massachusetts, to visit her cousins. The distance is 1,162 miles, and the driving time is 17 hours and 38 minutes. Christy's mother wants to do the drive in 3 days, going about the same number of miles each day.
a About how many miles will they drive each day?
About 388 miles each day.
Work will vary.
b About how many hours will they spend driving each day?
About 5 hours ( 53 minutes) Work will vary.


## Jump Rope for Charity page 1 of 2

1 Solve each problem below. You may use any strategy that is efficient for you. Be sure to show your work.
a Tyson and Amanda are jumping rope to raise money for charity. Amanda jumped rope 295 times. Tyson jumped 316 times. How many times total did they jump?

They jumped 611 times.
Work will vary.
b Beck and Sam are also jumping rope for charity. Beck jumped 345 times. Sam jumped 255 times. How many times did they jump in all?

They jumped 600 times.
Work will vary.

C Loretta and Claire are shooting baskets to raise money for field trips. Loretta made 123 baskets. Claire made 128 baskets. How many baskets did they make together?

> They made 251 baskets.
> Work will vary.

## Jump Rope for Charity page 2 of 2

2 Solve the two problems below, using any strategy you choose. Be sure to show your work.

| 275 |  |  |
| :--- | :--- | ---: |
| +336 |  |  |
| 611 |  | 189 <br> +332 <br> 521 <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  |

3 challenge Stella and Colette are jumping rope to raise money for the local Children's Hospital. Every time they jump 100 times, they earn one dollar. Stella jumped 487 times. Collette jumped 464 times. Did Stella and Colette jump enough times to raise $\$ 10$ for the Children's Hospital? Show all your work.

No, they did not. Student explanations will vary.
Example: They would need 1,000 jumps to earn \$10, and $487+467<1,000$.

## Which Strategy? page 1 of 2

## Note to Families

At school, we have been exploring the standard (or traditional) algorithm for addition. Another name for this strategy is the regrouping method. We've compared the standard algorithm to other strategies we have learned this year. Ask your child questions about the strategies he or she is using.

1 Use the standard algorithm to solve each problem. Then solve it a different way. Label your method. Circle the strategy that seemed quicker and easier.

|  | Standard algorithm | Different |
| :---: | :---: | :---: |
| a $265+178=$ | $\begin{array}{r} 265 \\ +178 \\ \hline 443 \end{array}$ | Work will vary. Example: $\begin{gathered} 200+100=300 \\ 60+70=130 \\ 5+8=13 \\ 300+130+13=443 \end{gathered}$ |
| b $213+198=$ | $\begin{array}{r} 213 \\ +198 \\ \hline 411 \end{array}$ | Work will vary. Example: $\begin{gathered} 198+2=200 \\ 213-2=211 \\ 200+211=411 \end{gathered}$ |
| $\text { C } \begin{array}{r} 234 \\ +342 \\ \hline \end{array}$ | $\begin{array}{r} 234 \\ +342 \\ \hline 576 \end{array}$ | Work will vary. Example: $\begin{aligned} 234-34 & =200 \\ 342+34 & =376 \\ 200+376 & =576 \end{aligned}$ |
| $\begin{aligned} & \text { d } \\ & \\ & \\ & \\ & \hline \end{aligned}$ | $\begin{array}{r} 168 \\ +143 \\ \hline 311 \end{array}$ | Work will vary. Example: $\begin{gathered} 160+140=300 \\ 8+3=11 \\ 300+11=311 \end{gathered}$ |

2 Conrad is making bread. After he mixes the ingredients together, he has to let the bread rise for 95 minutes. Then, the bread will bake for 58 minutes.
a How long will it take for the bread to rise and bake? Show your thinking using numbers, sketches, or words.

153 minutes; work will vary.
b What strategy did you use to solve this problem? Why?
Explanations will vary.

Which Strategy? page 2 of 2
3 Saima is training for a bike race. On Saturday, she rode her bike for 172 minutes. On Sunday, she rode for 153 minutes.
a How much longer did she ride her bike for on Saturday than on Sunday? Show your thinking using numbers, sketches, or words.

19 minutes
Work will vary.
b What strategy did you use to solve this problem? Why?

## Responses will vary.

C CHALLENGE Before she rides her bike, Saima warms up for 12 minutes. On Tuesday, Saima rode her bike for 52 miles. If it takes Saima 6 minutes to ride each mile, how long did it take for Saima to warm up and ride her bike on Tuesday?

324 minutes
Work will vary.


## Combinations of 1,000

4 Fill in the missing numbers to make a total of 1,000 in each box.

$$
\begin{array}{lll}
480+520=1,000 & 670+330=1,000 & 170+830=1,000 \\
210+790=1,000 & 720+280=1,000 & 500+500=1,000 \\
840+160=1,000 & 360+640=1,000
\end{array}
$$

## Estimates, Sums \& Story Problems page 1 of 2

1 Round each pair of numbers to the nearest ten, and then add the rounded numbers to estimate the sum. Then use any strategy you like to find the exact sum. Compare the exact sum to your estimate to make sure that it makes sense. If your answer does not make sense, double-check your work or solve the problem another way.

| Number to Add | Round \& Add | Exact Sum | Check your answer if the sum and estimate were far apart. |
| :---: | :---: | :---: | :---: |
| a $\begin{array}{r} 386 \\ +275 \\ \hline \end{array}$ | $\begin{array}{r} 390 \\ +280 \\ \hline 670 \end{array}$ | 661 | Student work will vary. |
| b $\begin{array}{r} 517 \\ +378 \\ \hline \end{array}$ | $\begin{array}{r} 520 \\ +380 \\ \hline 900 \end{array}$ | 895 | Student work will vary. |
| C $\begin{array}{r}263 \\ +477 \\ \hline\end{array}$ | $\begin{array}{r} 260 \\ +480 \\ \hline 740 \end{array}$ | 740 | Student work will vary. |

2 Use estimation to answer each question yes or no. Do not find exact sums.
a Shawna has a photo album with space for 160 pictures. She has 33 pictures of her family, 48 pictures from summer camp, and 57 pictures from school. Does she have enough pictures to fill the photo album?

No
b Fred needs 410 game markers to play a game with his classmates and their families on Family Math Night. He has 96 red markers, 123 blue markers, 106 yellow markers, and 72 green markers. Does he have enough game markers to play the game?

No

## Estimates, Sums \& Story Problems page 2 of 2

3 Jasmine's neighbor paid her $\$ 32$ for helping with some yard work. Jasmine gave her brother $\$ 8$ because he helped her with some of the work. Then she went shopping with the rest of the money. She bought 3 books that were $\$ 6$ each and a bottle of juice for $\$ 2$. How much money did she have left? Show all your work.
$\$ 4$
Work will vary.


4 The third graders are putting on a play for the fourth and fifth graders. They need to set up chairs in the gym for the fourth and fifth graders to sit on. There are 86 fourth graders, 79 fifth graders, 3 fourth grade teachers, and 3 fifth grade teachers. How many chairs will the third graders need to set up? Show all your work.

> 171 chairs
> Work will vary.

5 ChALLENGE The third graders can put no more than 20 chairs in a row. How many rows of chairs will they need? Show all your work.

> 9 rows
> Work will vary.


