## Addition Fact Review page 1 of 2

## Note to Families

As a classroom teacher, I appreciate the ways in which families contribute to their children's success in school. When you take the time to review your child's schoolwork, talk about your child's day, and practice concepts and skills, you play an important role in your child's education.
In math class, we have been reviewing patterns in basic addition facts. We have reviewed helpful strategies and identified facts we already know. This assignment is intended to be a review and will give students an opportunity to share strategies with you that will later be used with larger numbers.

1 Complete these Doubles and Make Ten facts.

| 4 | 6 | 9 | 8 | 7 | 5 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| +4 | +4 | +9 | +2 | + 7 | + 5 | +1 |
| 8 | 10 | 18 | 10 | 14 | 10 | 10 |

2 Complete these Doubles Plus or Minus One facts.

| 5 | 7 | 3 | 4 | 8 | 9 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| +4 |  |  |  |  |  |
| 9 | $+\frac{8}{15}$ | +2 |  |  |  |
| 5 | +3 | $\frac{+9}{7}$ | $\frac{+10}{19}$ | $\frac{+5}{11}$ |  |

$36+1$ and $7+2$ are examples of Count On facts. Write three more Count On facts.
Responses will vary but should be in the form

$$
n+1,1+n, n+2,2+n, n+3, \text { or } 3+n .
$$

4 Kallie thinks that every Doubles problem will have an even sum. Do you agree or disagree? Explain why.

Responses will vary.
Doubles facts always have even sums.
5 The sum of two numbers is 12. List three possible equations.
Responses will vary.
$\qquad$
$\qquad$ b $\qquad$ $+$ $\qquad$ $=12$ $\qquad$ $+$ $\qquad$ $=12$

6 Write an equation that could represent this picture.

(continued on next page)

## Addition Fact Review page 2 of 2

7 Emma says that she can prove that $8+3=7+4$. How could she use a number rack to prove her thinking? Draw a number rack or explain in writing.

Responses will vary.

8 CHALLENGE Solve the problem in the easiest way you can. Show your work. (Hint: Change the order in which you add the numbers.) $60+50+40+70+30=$

250
Work will vary.

9 ChaLLENGE Sage wants to buy board games for some of her friends. Board games cost $\$ 9$ each. She has $\$ 6$ and one coupon for $\$ 3$ off. Her Aunt Barbara gave her \$7 and another coupon for $\$ 3$ off.
a How many games can Sage buy if she uses the coupons? Show your work.
She can buy 2 games. Work will vary. Example:

$$
\begin{gathered}
\$ 6+\$ 7=\$ 13 \text { (total money) } \\
\$ 9-\$ 3=\$ 6 \text { (cost per game) } \\
\$ 6 \times \$ 2=\$ 12 \text { (cost for } 2 \text { games) }
\end{gathered}
$$

b Will Sage have any money left over? If so, how much? Show your work.
She will have \$1 left over.
Work will vary.

## Addition \& Subtraction Review page 1 of 3

## Note to Families

Students have reviewed and explored addition facts and strategies, and they are now investigating subtraction facts. Naming, categorizing, and identifying strategies will help your child not only understand and solve basic subtraction facts but also solve larger subtraction problems. These strategies help students develop a better understanding of the relationship between numbers and operations. Encourage your child to share with you the fact strategies we have used in the classroom. If your child is having trouble remembering the names of the strategies, the chart at the bottom of page 5 will help.

1 Complete these subtraction facts.
$5-2=3$
$8-3=$ $\qquad$

$$
6-1=5
$$

$$
9-2=7
$$

2 Complete these subtraction facts.
$12-6=\underline{6}$
$8-4=4$
$16-8=\underline{8}$
$14-7=\underline{7}$

3 What do the facts in Problem 2 have in common?
Responses will vary. Examples:

- The difference is always equal to the subtrahend
- The minuend is always even.
-The minuend is always twice the subtrahend (and the difference)

4 Complete these subtraction facts.

| 9 |
| ---: |
| -4 |
| 5 |

11
12
13
12
11
$\frac{-4}{5} \quad-4$
$-7$
$-\frac{8}{5}$
$-4$
$-\frac{5}{6}$

5 Complete these subtraction facts.
$19-9=\underline{10}$
$12-2=\underline{10}$
$17-7=\underline{10}$
$14-4=\underline{10}$

6 What is the name for facts like those in Problem 5?
Back to Ten facts.

## Addition \& Subtraction Review page 2 of 3

7 There are 13 blue marbles and 7 red marbles in a bag. How many more blue marbles than red marbles are in the bag? Keona says this is a subtraction problem. Tamron says it is an addition problem. What do you think? Why?

Responses will vary. The problem can be solved with addition or subtraction. Since it involves the comparison of two quantities, students will most likely interpret it to be a subtraction problem.

8 Complete these addition facts.

| 9 | 7 | 10 | 6 | 4 | 8 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $\frac{+4}{13}$ | $\frac{+9}{16}$ | $\frac{+8}{18}$ | $\frac{+4}{10}$ | $\frac{+7}{11}$ | $\frac{+6}{14}$ |
|  |  |  |  |  |  |
| 8 | 7 | 6 | 9 | 4 | 5 |
| +3 |  |  |  |  |  |
| 11 | $\frac{+8}{15}$ | $\frac{+6}{12}$ | $\frac{+8}{17}$ | $\frac{+7}{11}$ | $\frac{+9}{14}$ |

9 Complete each equation with a different pair of numbers whose difference is 6 . Responses will vary.
a $\qquad$ - $\qquad$ $=6$
b $\qquad$ $-$ $\qquad$ $=6$

## Addition \& Subtraction Review page 3 of 3

10 Lisa and her dad are peeling apples to make some apple pies. The pies need 14 apples. Lisa and her dad have peeled 5 apples.
a Is there an odd or even number of apples left to peel? How do you know?
An odd number.
Responses will vary.
b How many apples are left to peel? Show your work.

> 9 apples.
> Work will vary.


CHALLENGE Lisa has 32 clean dishes to put away after emptying the dishwasher. After she put away 4 dishes, she helped her mother bring groceries in from the car. Then she put away 7 more dishes. How many dishes still need to be put away? Show your work.

21 dishes. Work will vary.

| Subtraction Strategy | Example |
| :--- | :--- |
| Zero facts | $5-0=5,18-0=18$ |
| Count Back facts | $9-1=8,7-2=5,14-3=11$ |
| Take All facts | $6-6=0,15-15=0$ |
| Take Half facts | $8-4=4,12-6=6$ |
| Back to Ten facts | $14-4=10,18-8=10$ |
| Take Away Ten facts | $19-10=9,16-10=6$ |
| Up to Ten facts | For $17-8$, start at 8, add 2 to get to 10, add 7 to get to $17.2+7=9.17-8=9$. |

## Of Mice \& Moles page 1 of 2

For problems $1-3$, show your work using numbers, words, or labeled sketches.

1 Xavier watched a mouse walk this path. How far did the mouse travel?


21 feet. Work will vary.
2 A mole was burrowing in a field. First, the mole went 6 meters in one direction, then 8 meters in another direction, and then 4 meters in another direction. How far did the mole burrow?

$$
18 \text { meters. Work will vary. }
$$

3 a Charlie T. Mole ate 16 insects. Anabel H. Mole ate 26 insects. How many more insects did Anabel eat?

Anabel ate 10 more insects.


Work will vary.
b Peter says this is a subtraction problem. Gladys says it is an addition problem. What do you think? Why?

Responses will vary. Because it involves the comparison of two quantities, many students will interpret it to be a subtraction problem.

4 The difference of two numbers is 7 . List three possible equations that have a difference of 7 .
$\qquad$ - $\qquad$ $=7$ $\qquad$ - $\qquad$ $=7$ $\qquad$
$\qquad$ $=7$

## Responses will vary.

5 Write an equation that could represent this picture.


Responses will vary.
Examples: $9+4=13$,

$$
5+4+4=13 \quad 8+5=13
$$

(continued on next page)

Of Mice \& Moles page 2 of 2
6 Challenge Abel S. Mouse searched for food for 28 minutes. He found a snack and spent 10 minutes eating his snack. How much longer did it take Abel S. Mouse to find his snack than it took him to eat it? Which of the following represents this situation?
$28+s=10$
$10+28=s$
$38-s=28$

- $28-10=s$

7 Jana practiced the piano 10 minutes longer than her brother, Grant. Jana practiced for 35 minutes. How long did Grant practice? Show your work.

Grant practiced 25 minutes.

8 CHALLENGE Lulu practiced the piano for 45 minutes, and then she practiced the violin for 30 minutes.
a How much time did Lulu spend practicing her instruments? Show your work.
75 minutes.
b Is that more or less than an hour? How do you know?


More than an hour.
Responses will vary.

C How many minutes more or less than an hour did Lulu practice? Show your work.
15 minutes more than an hour.
Work will vary.

## Sums \& Differences page 1 of 2

1 The sum of three numbers is 12 . What could those three numbers be? Think of three different solutions.

$$
12=\ldots+\ldots+\ldots \quad 12=\ldots+\ldots+\ldots+\ldots
$$

2 The difference between two numbers is 12 . What could those numbers be?
$12=$ $\qquad$ - $\qquad$ $12=$ $\qquad$ - $\qquad$ $12=$ $\qquad$
$\qquad$
Responses will vary.
3 Look at this picture and think about the many different equations you could write to represent it.

a Write an addition equation to represent the picture above.
Responses will vary.
b Write a subtraction equation to represent the picture above.
Responses will vary.

4 a Add each pair of numbers.

| 8 | 10 | 78 | 10 | 168 | 28 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| +10 | +38 | +10 | +118 | $\frac{+10}{128}$ | $\frac{+10}{38}$ |

b What pattern do you see in the combinations above?
Responses will vary. Examples:

- You aways add 10 to another number.
- There is always an 8 in the ones place.
- Adding 10 doesn't change the number in the ones place.
- Adding 10 makes the number in the tens place increase by 1.


## Sums \& Differences page 2 of 2

Use numbers, pictures, or words to show your work when you solve these problems. Use additional paper if you need more room.

5 Jack is 36 inches tall. Mary is 6 inches taller than Jack. Cameron is 4 inches taller than Mary.
a How many inches tall is Cameron?

## 46 inches

b How many inches tall is Mary?
42 inches
6 CHALLENGE You and your friend are talking about your solutions to problem 2. Your friend said that there are exactly 12 different pairs of numbers with a difference of 12 and that he had found them all. How would you respond to him?

He is incorrect. Responses will vary. Example:
There are infinitely more pairs of numbers with a difference of $12(n+12)-n=12$.

7 CHALLENGE You and your friend were thinking about pairs of whole numbers that have a sum of 12 . How many pairs of whole numbers can you find that have a sum of 12 ? (Note: A whole number is equal to or greater than 0 and does not include a fraction. 2 is a whole number. $2 \frac{1}{2}$ is not a whole number.)

There are 7 pairs of whole numbers with a sum of 12 .

$$
\begin{gathered}
0+12=12,1+11=12,2+10=12,3+9=12 \\
4+8=12,5+7=12, \text { and } 6+6=12
\end{gathered}
$$

8 CHALLENGE How many pairs of whole numbers have a sum of 40?
21 pairs; work will vary.

9 CHALLENGE How many pairs of whole numbers have a sum of 110 ?
56 pairs; work will vary.

10 CHALLENGE How many pairs of whole numbers have a sum of 99 ?
50 pairs; work will vary.

## Adding Tens page 1 of 2

1 Count on by 10 s to fill in the blanks below.


| b | 2 |  | 12 | 22 | 32 | 42 | 52 | $\boxed{62}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |




2 Solve each problem below. Show your work for each.
a The book measures 40 centimeters and the paper measures 120 centimeters.
How long are they together if you line them up end-to-end?
160 cm; work will vary.
b The paper measures 120 centimeters and the pen measures 30 centimeters. How long are they together if you line them up end-to-end?

150 cm ; work will vary.

C The photo measures 30 centimeters and the frame measures 250 centimeters. If you lined them up end-to-end, how long would they be together?

280 cm ; work will vary.

Adding Tens page 2 of 2
3 Albert rode his bike for 14 minutes. Ally rode her bike for 8 minutes.
a How much longer did Albert ride?

## 6 minutes

b Which equation could you use to represent this problem:$14+8=b$

- $14+b=8$$8-b=14$
- $14-b=8$

4 Show your thinking when you solve these problems:
a Bobby is supposed to be at school at 8:30 but on Monday he was 17 minutes late. What time did Bobby get to school?

8:47
Work will vary.
b ChALLENGE Steve was also late to school on Monday, but he got there 8 minutes before Bobby. What time did Steve get to school?

8:39
Work will vary.

## More Adding Tens page 1 of 2

1 Count on by 10 s to fill in the blanks below.

| a | 46 | 56 | 66 | 76 | 86 | 96 | 106 | 116 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| b | 108 | 118 | 128 | 138 | 148 | 158 | 168 | 178 |
| C | 202 | 212 | 222 | 232 | 242 | 252 | 262 | 272 |
| d | 736 | 746 | 756 | 766 | 776 | 786 | 796 | 806 |

2 Solve the problems below. Show your work for each.
a The book measures 45 units and the paper measures 23 units. How long are they together if you line them up?

68 units; work will vary.
b The pencil measures 20 units and the pen measures 32 units. How long are they together if you line them up?

52 units; work will vary.

C The photo measures 95 units and the frame measures 25 units. If you lined them up, how long would they be together?

120 units; work will vary.
d You line up a paper, pencil, and pen and they measure 43 units end to end. The paper measures 23 units, the pencil measures 10 units. What does the pen measure?

10 units; work will vary.

## More Adding Tens page 2 of 2

3 Alex's goal this month is to ride 20 miles on his bike. One week he rode 5 miles, the next week he rode 6 miles, and this past week he rode 8 miles.
a How many miles has Alex ridden so far? 19 miles
b How many miles does Alex still need to ride to meet his goal of riding 20 miles this month?

1 mile

4 Alex's sister Hazel also likes to bicycle a lot. In three weeks, she rode a total of 20 miles. How many miles did she ride each week? Find at least four solutions to the problem.


5 Steve and Henry rode their bikes completely around Brightwood Park. The distances are marked on the map. How many kilometers (km) did they ride? Show your work.

37 km
Work will vary.

6 Logan's dog, Chief, likes to patrol along the fence of Logan's backyard to make sure everything is as it should be. How many feet does Chief walk every time he patrols the yard? Show your work.

200 ft.
Work will vary.


## Making Ten page 1 of 2



1 Complete each equation.
$7+\underline{3}=10$
$10=2+\quad 8$
$\qquad$

$$
+5=10
$$

$$
10=\underline{4}+6
$$

2 Complete each equation.

| $27+\underline{3}=30$ | $30=2+\quad 28$ | $25+5=30$ | $30=\underline{4}+26$ |
| :---: | :---: | :---: | :---: |
| $27+\underline{13}=40$ | $40=2+38$ | $35+5=40$ | $40=\underline{14}+26$ |
| $27+\underline{53}=80$ | $80=2+\quad 78$ | $75+5=80$ | $80=\underline{54}+$ |

3 Show your thinking when you solve these problems.
a Fiona's team had 27 points and the other team had 40 points. The team with the most points wins the game. If the other team scored no more points, how many more points would Fiona's team need to win? 14 more points
Work will vary.
b Mark has $\$ 35$. He needs $\$ 80$ to buy the bike he really wants. How much more money does Mark need to buy the bike?
\$45
Work will vary.

## Making Ten page 2 of 2

4 Show your thinking when you solve these problems.
a Terilyn and Mark are on a fishing trip. Terilyn caught 13 fish. She has to catch 10 more to have as many fish as Mark. How many fish has Mark caught?

23 fish
Work will vary.
b Terilyn has some grapes in her lunch. She gave 20 grapes to Mark, and now she has 28 grapes left. How many grapes did Terilyn have to start with?


## Double-Digit Addition page 1 of 2

1 Add each pair of numbers. Show all your work. Try to use different methods to add the numbers.

| a $20+20=40$ | b $40+30=70$ | C $30+60=90$ |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

2 Victor had 120 baseball cards. His cousin gave him 40 more cards. Then his brother gave him 50 more cards. How many baseball cards does Victor have now? Show all your work.

## 210 baseball cards. <br> Work will vary.



## Double-Digit Addition page 2 of 2

Show all your work when you solve these problems.
3 The toy store is having a special on board games. If you buy two games for $\$ 17$ each, you get $\$ 5$ off the total. How much would you end up paying for those two games?
\$29
Work will vary.


4 Action figures that usually cost $\$ 12$ are on sale. During the sale you can get two action figures for $\$ 15$. How much do you save when you buy two for $\$ 15$ ?
\$9
Work will vary.


5 CHALLENGE Jaime has 38 marbles. If Jorge had 14 more marbles, he would have twice as many marbles as Jaime. How many marbles does Jorge have now?

> 62 marbles
> Work will vary. Example:
> $38+38=76$
> $76-14=62$


## Patterns \& Sums page 1 of 2

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

| a $30+65=95$ | b $42+35=77$ | C $46+38=84$ |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

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

204 lego pieces.
Work will vary.

## Patterns \& Sums page 2 of 2

Show your work when solving these story problems.
3 Some of the third graders and fourth graders started a new kickball game at recess. The third graders scored 8 runs in the first inning and 4 runs in the second inning. The fourth graders scored 5 runs in the first inning and 16 runs in the second. How many more runs do the fourth graders have?

9 more runs.
Work will vary.


4 CHALLENGE Barbara has three chickens. Last week they each laid 4 eggs, and this week they each laid 5 eggs. Barbara gave 8 eggs away and used 7 of the eggs for making breakfasts and cookies. How many eggs does she have left?

12 eggs left.
Work will vary


