

1

Purposeful Design

MATHEMATICS

THIRD EDITION

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Chapter 11

LM

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LM 11.1A Chapter 11 Parent Letter



Dear Parents,

To review and reinforce what your child has learned this year, the focus in this chapter is problem solving. While every chapter has included a variety of word problems for students to solve, in the next two weeks we will emphasize the use of clue words for addition and subtraction. Encourage your child to listen for clue words in everyday settings. Some addition clue words are *add, in all, altogether, sum,* and

total. For subtraction, point out clue words such as *difference, how many are left, and how many more*.

Your child will practice writing equations and will explore estimation and probability. Your first grader will also apply knowledge of measurement, money, and time to real life situations. He or she will use a variety of games and activities to reinforce problem-solving skills. From adding and subtracting with dominoes, to participating in a measurement scavenger hunt and much more, the use of math to solve problems should be fun.

Thank you for encouraging your child to master math skills!

Name _____

LM 11.4A Missing Addends

Solve. Color the section blue if the missing addend is 1, 2, or 3. Color the section green if the missing addend is 4, 5, or 6.

1. $6 + \underline{\quad} = 8$	9. $3 + \underline{\quad} = 6$
2. $2 + \underline{\quad} = 7$	10. $5 + \underline{\quad} = 11$
3. $5 + \underline{\quad} = 6$	11. $6 + \underline{\quad} = 10$
4. $7 + \underline{\quad} = 11$	12. $6 + \underline{\quad} = 9$
5. $2 + \underline{\quad} = 8$	13. $8 + \underline{\quad} = 9$
6. $1 + \underline{\quad} = 4$	14. $9 + \underline{\quad} = 10$
7. $6 + \underline{\quad} = 9$	15. $3 + \underline{\quad} = 8$
8. $4 + \underline{\quad} = 5$	16. $7 + \underline{\quad} = 12$



Read the word problem. Solve for the missing addend. Write the number sentence from the list above that you used to solve the problem.

- 17.** One morning, Scott went outside to count the sailboats on the water. He counted 5 boats. At lunchtime, Scott counted 11 sailboats. How many boats had joined the first 5 boats?

_____ boats

**LM 11.4A Missing Addends**

Solve. Color the section **blue** if the missing addend is 1, 2, or 3.
Color the section **green** if the missing addend is 4, 5, or 6.

1. $6 + \underline{2} = 8$ blue	9. $3 + \underline{3} = 6$ blue
2. $2 + \underline{5} = 7$ green	10. $5 + \underline{6} = 11$ green
3. $5 + \underline{1} = 6$ blue	11. $6 + \underline{4} = 10$ green
4. $7 + \underline{4} = 11$ green	12. $6 + \underline{3} = 9$ blue
5. $2 + \underline{6} = 8$ green	13. $8 + \underline{1} = 9$ blue
6. $1 + \underline{3} = 4$ blue	14. $9 + \underline{1} = 10$ blue
7. $6 + \underline{3} = 9$ blue	15. $3 + \underline{5} = 8$ green
8. $4 + \underline{1} = 5$ blue	16. $7 + \underline{5} = 12$ green



Read the word problem. Solve for the missing addend. Write the number sentence from the list above that you used to solve the problem.

- 17.** One morning, Scott went outside to count the sailboats on the water. He counted 5 boats. At lunchtime, Scott counted 11 sailboats. How many boats had joined the first 5 boats?

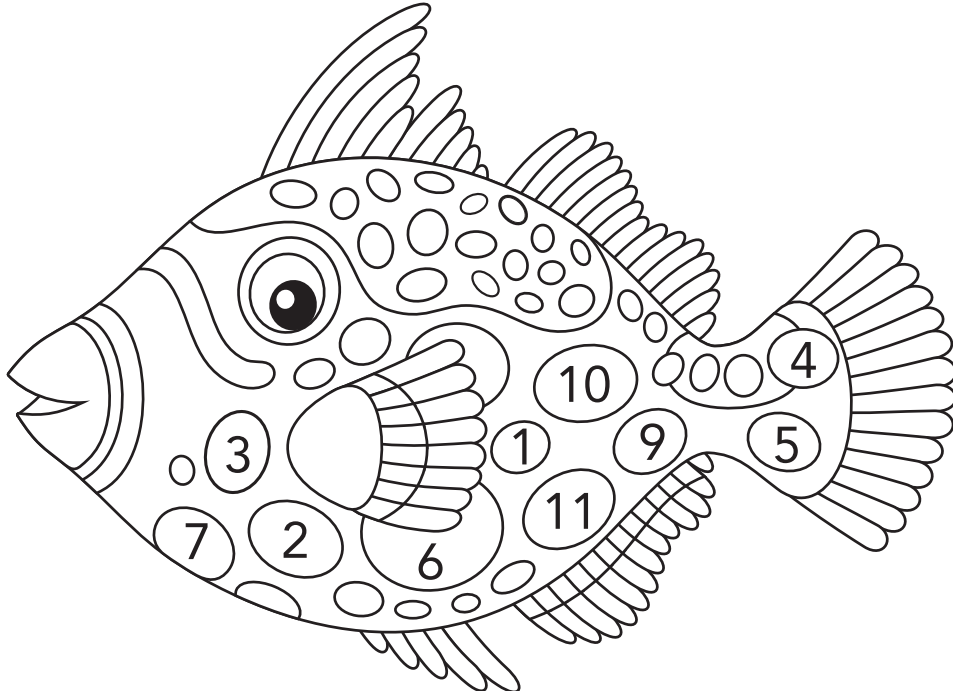
6 boats

$$5 + 6 = 11$$

Name _____

LM 11.6A Add or Subtract

Color the ovals on the fish that have the answers to the problems.



- 1.** There were 6 red fish, but 4 of them swam away. How many fish are left?

_____ fish

- 2.** A shark swam by a school of 11 red fish. Six of the fish swam away from the school. How many fish stayed together?

_____ fish

- 3.** Five yellow starfish, 2 sea horses, and 4 sea urchins lived in the reef. How many sea animals were there in all?

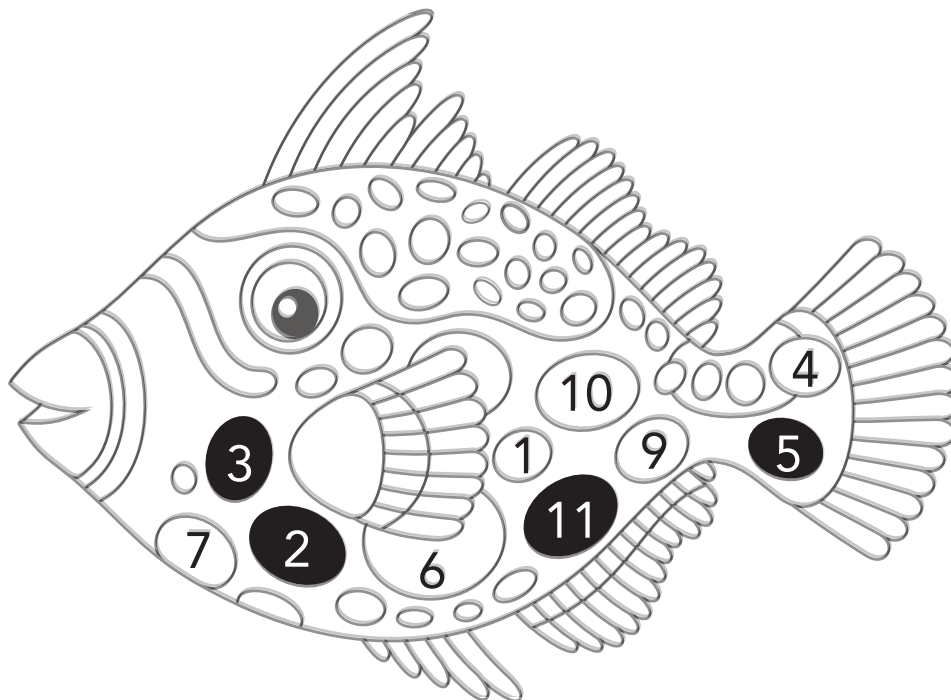
_____ sea animals

- 4.** Ten silver minnows swam over the reef. A fisherman caught 7 of them. How many minnows were left?

_____ minnows

**LM 11.6A Add or Subtract**

Color the ovals on the fish that have the answers to the problems.



1. There were 6 red fish, but 4 of them swam away. How many fish are left?

2 fish

2. A shark swam by a school of 11 red fish. Six of the fish swam away from the school. How many fish stayed together?

5 fish

3. Five yellow starfish, 2 sea horses, and 4 sea urchins lived in the reef. How many sea animals were there in all?

11 sea animals

4. Ten silver minnows swam over the reef. A fisherman caught 7 of them. How many minnows were left?

3 minnows

LM 11.7A Extra Information

Read. Mark off any extra information. Solve the problem.

1. Jeff has 12 blocks. Three blocks are red. How many blocks are not red?

_____ blocks

5. Chris had 25¢. He lost 5¢. How much money does Chris have now?

_____ ¢



2. Eleven zebras were in the field. Three were eating. One zebra ran away. How many were left?

_____ zebras

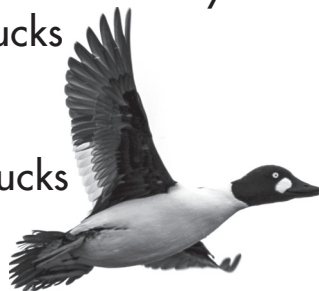


6. June earned 10 stickers. Delia earned 20 stickers. Tia earned 15 stickers. How many more did Delia earn than June?

_____ stickers

3. There were 24 ducks in the pond. Then, 12 flew away. How many ducks were left?

_____ ducks



7. Lena saw 3 polar bears at the zoo. She saw 1 tiger. She saw 4 black bears. How many bears did Lena see?

_____ bears

4. Marge had 40¢. She earned 20¢ more. Ron earned 25¢. How much money does Marge have now?

_____ ¢

8. Chad read 7 books. He read 7 more books. How many books did Chad read?

_____ books





LM 11.7A Extra Information

Read. Mark off any extra information. Solve the problem.

1. Jeff has 12 blocks. Three blocks are red. How many blocks are not red?

9 blocks

5. Chris had 25¢. He lost 5¢. How much money does Chris have now?

20 ¢



2. Eleven zebras were in the field. ~~Three were eating.~~ One zebra ran away. How many were left?

10 zebras



6. June earned 10 stickers. Delia earned 20 stickers. ~~Tia earned 15 stickers.~~ How many more did Delia earn than June?

10 stickers

3. There were 24 ducks in the pond. Then, 12 flew away. How many ducks were left?

12 ducks



7. Lena saw 3 polar bears at the zoo. ~~She saw 1 tiger.~~ She saw 4 black bears. How many bears did Lena see?

7 bears

4. Marge had 40¢. She earned 20¢ more. ~~Ron earned 25¢.~~ How much money does Marge have now?

60 ¢

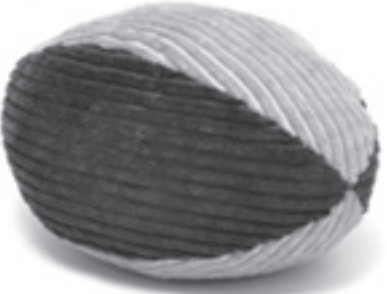
8. Chad read 7 books. He read 7 more books. How many books did Chad read?

14 books





LM 11.9A Pet Store Catalog

50¢ 	\$1.00 	\$1.00 
\$1.50 	\$2.50 	\$3.00 
\$3.00 	\$3.50 	\$4.00 

Name _____

LM 11.9B Money

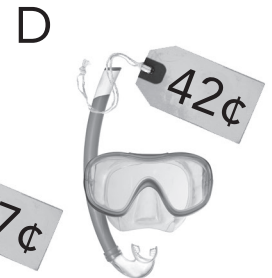
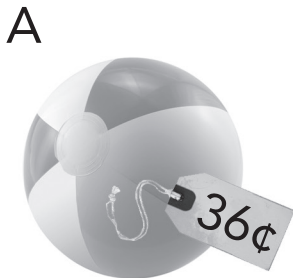
Write the amount.

1.        52¢

2.       _____

3.       _____

Write the letter of any gift below that can be bought with the money shown.



4.    _____

5.        _____

6.        _____

7.   _____



LM 11.9B Money

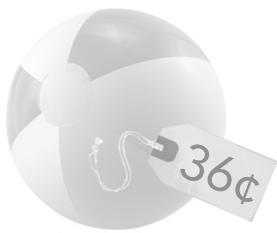
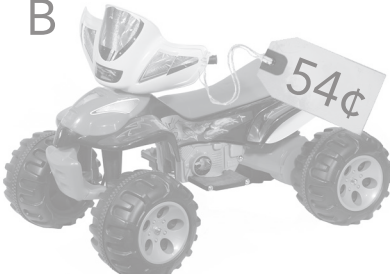
Write the amount.

1.  52¢

2.  38¢

3.  47¢

Write the letter of any gift below that can be bought with the money shown.

A  B  C  D 

4.  A or C

5.  A, B, C, or D

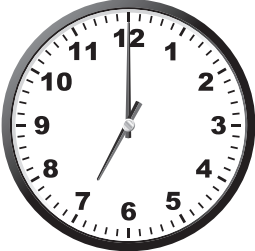
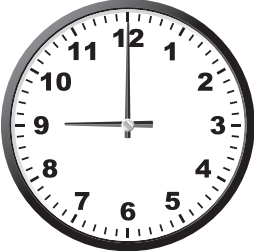
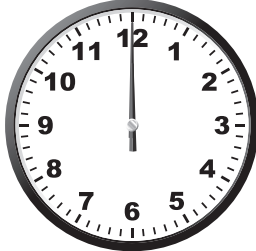
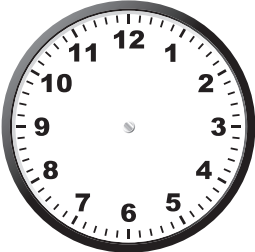
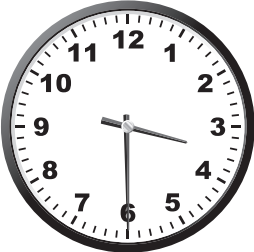
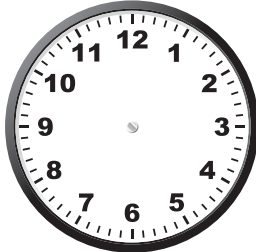
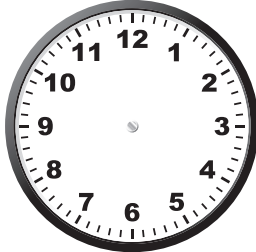
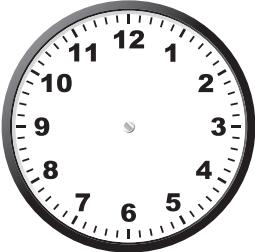
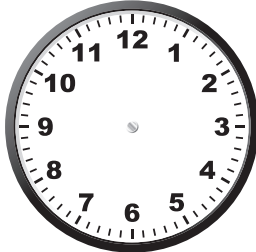
6.  A, C, or D

7.  C

Name _____

LM 11.10A Time

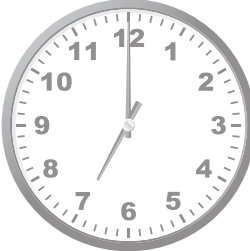
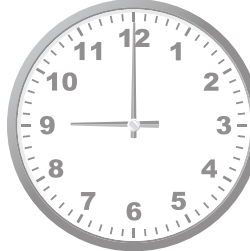
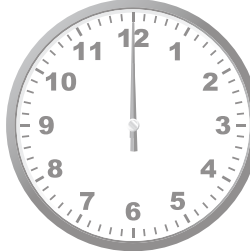
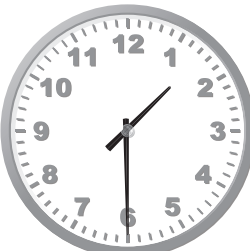
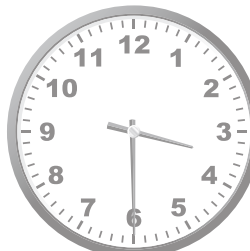
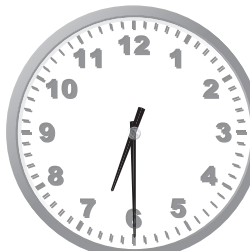
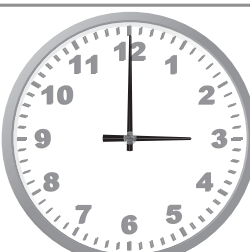
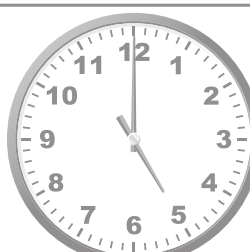
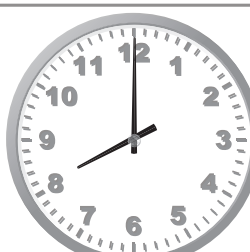
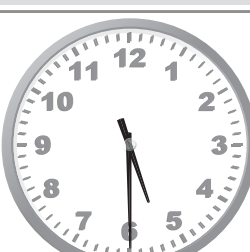
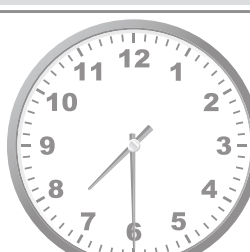
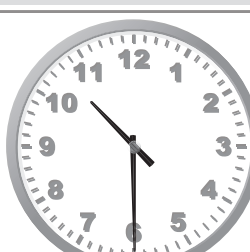
In the **time** column, write the time shown on the clock. Draw the hands to show 2 hours earlier and 3 hours later than the time shown.

2 hours earlier	time	3 hours later
1.  7:00	 9:00	 12:00
2. 		
3. 		
4. 		



LM 11.10A Time

In the **time** column, write the time shown on the clock. Draw the hands to show 2 hours earlier and 3 hours later than the time shown.

2 hours earlier	time	3 hours later
1.  7:00	 9:00	 12:00
2.  1:30	 3:30	 6:30
3.  3:00	 5:00	 8:00
4.  5:30	 7:30	 10:30

Name _____

LM 11.11A Two-Digit Addition and Subtraction

Read each problem. Write the problem and then solve.



1. Vicky has 5 dimes and 3 pennies. How much money does she have? _____ ¢ Name one thing she can buy. _____
2. Will and Jeremiah want to buy a kite. Will has 36¢. Jeremiah has 53¢. Do they have enough money?

3. Libby had 4 dimes and 7 pennies. She bought a pinwheel. How much money does she have now?
_____ ¢
4. Pavel had 62¢. On his way to the store he found a dime. Does he have enough money to buy a ball?

5. Which two toys could you buy for 56¢?



LM 11.11A Two-Digit Addition and Subtraction

Read each problem. Write the problem and then solve.



1. Vicky has 5 dimes and 3 pennies. How much money does she have? 53 ¢ Name one thing she can buy. **Answer should be one of the following: the jump rope, the pinwheel, or the jacks.**

$$\begin{array}{r} 50¢ \\ + 3¢ \\ \hline 53¢ \end{array}$$

2. Will and Jeremiah want to buy a kite. Will has 36¢. Jeremiah has 53¢. Do they have enough money?

$$\begin{array}{r} 36¢ \\ + 53¢ \\ \hline 89¢ \end{array}$$

yes

3. Libby had 4 dimes and 7 pennies. She bought a pinwheel. How much money does she have now?

$$\begin{array}{r} 47¢ \\ - 32¢ \\ \hline 15¢ \end{array}$$

15 ¢

4. Pavel had 62¢. On his way to the store he found a dime. Does he have enough money to buy a ball?

$$\begin{array}{r} 62¢ \\ + 10¢ \\ \hline 72¢ \end{array}$$

no

5. Which two toys could you buy for 56¢?

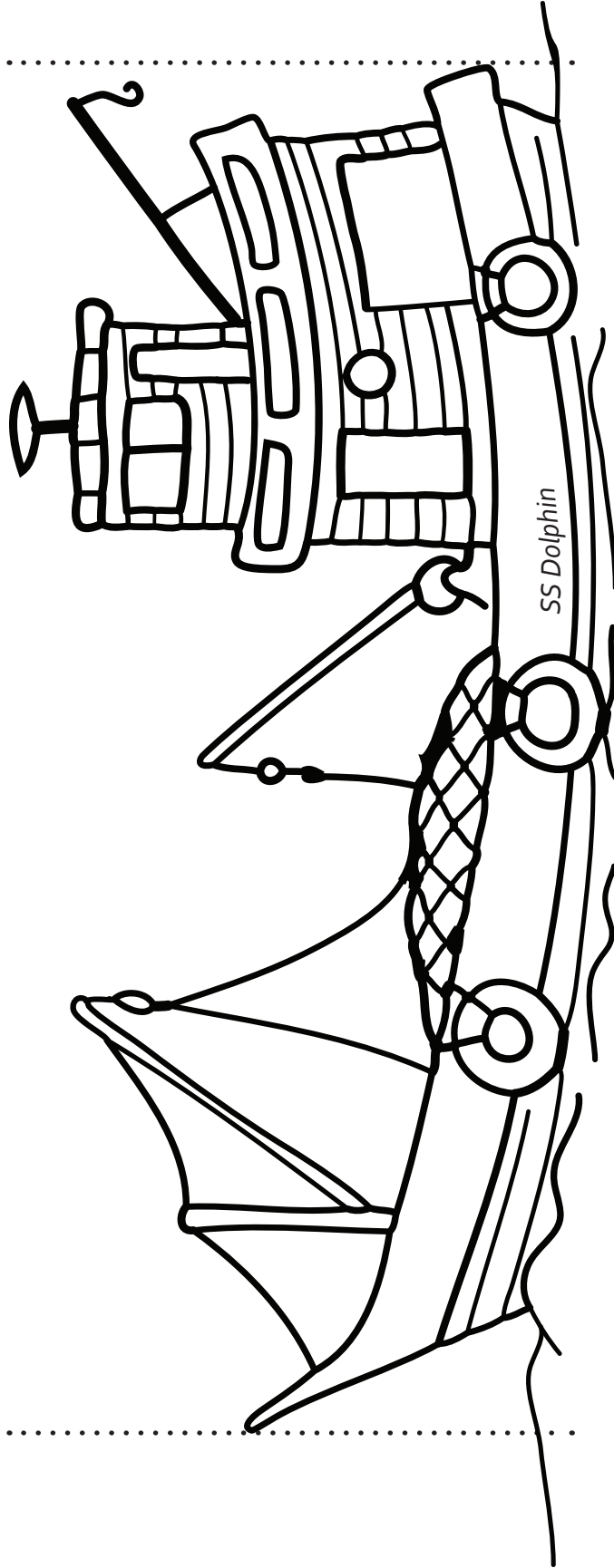
$$\begin{array}{r} 32¢ \\ + 24¢ \\ \hline 56¢ \end{array}$$

the pinwheel and the jacks

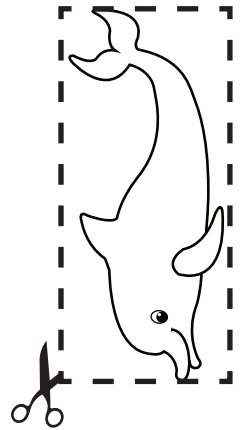
Name _____

LM 11.12A SS Dolphin

Cut out the dolphin. Use the dolphin to answer the questions.



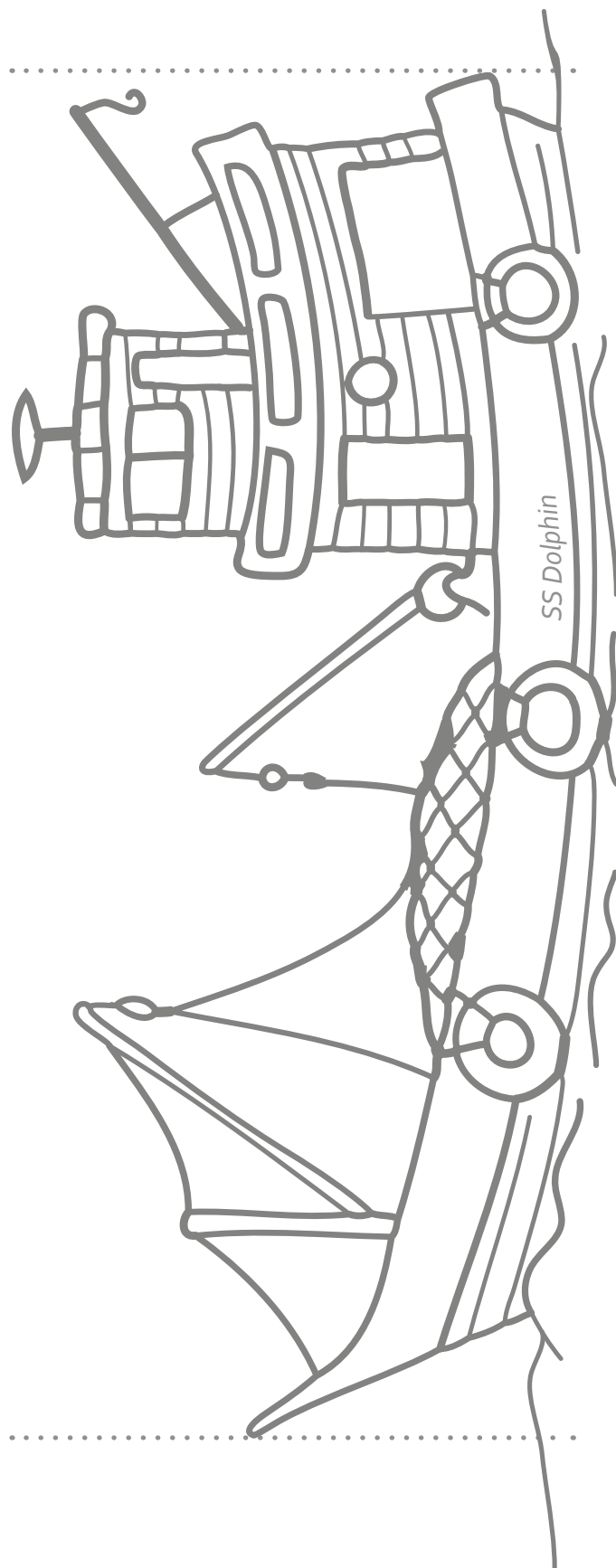
1. How many dolphins long is the boat? _____ dolphins
2. How many centimeters long is the boat? _____ centimeters





LM 11.12A SS Dolphin

Cut out the dolphin. Use the dolphin to answer the questions.



1. How many dolphins long is the boat? **4** _____ dolphins
2. How many centimeters long is the boat? **20** _____ centimeters





Name _____

LM 11.13A Probability

1. Put 1 green, 3 blue, and 7 red color tiles in a bag.
2. Shake the bag. Without looking, pick out a tile.
3. Color a rectangle on the graph to show your pick.
4. Make a guess. If you pick 10 more times, which color tile do you think you will pick the most often? Circle your guess.

red blue green



5. Put the tile back in the bag. Shake. Draw a tile. Color a rectangle on the graph. Repeat 10 more times. Fill in the graph.
6. Was your guess correct? **yes no**

Color Tiles

red											
blue											
green											
	1	2	3	4	5	6	7	8	9	10	11

7. Which color did you pick the least often?
red blue green

Name _____

LM 11.15A Chapter 11 Test

Solve the word problems. Show your work in the .

- 1.** Ted buys 1 baseball glove, 2 baseballs, and 1 baseball bat. How many items does he buy in all?

_____ items

- 2.** Kari had 99¢. She bought a doll for 27¢. How much does Kari have left?

_____ cents

- 3.** Ashley wants to buy a mitt for 45¢. She has 25¢. How much more money does she need to buy the mitt?

_____ cents

Circle the fact family that has the fact you would need to solve the problem.

- 4.** Linn Soo had 12¢ to spend at the yard sale. She bought a teddy bear for 5¢. How much does she have left?

_____ cents



$12 + 5 = 17 \quad 5 + 12 = 17$

$12 - 5 = 7 \quad 12 - 7 = 5$

$17 - 5 = 12 \quad 17 - 12 = 5$

$7 + 5 = 12 \quad 5 + 7 = 12$


LM 11.15A Chapter 11 Test

Solve the word problems. Show your work in the .

1. Ted buys 1 baseball glove, 2 baseballs, and 1 baseball bat. How many items does he buy in all?

4 items

$$1 + 2 + 1 = 4$$

2. Kari had 99¢. She bought a doll for 27¢. How much does Kari have left?

72 cents

$$\begin{array}{r} 99\text{¢} \\ - 27\text{¢} \\ \hline 72\text{¢} \end{array}$$

3. Ashley wants to buy a mitt for 45¢. She has 25¢. How much more money does she need to buy the mitt?

20 cents

$$\begin{array}{r} 45\text{¢} \\ - 25\text{¢} \\ \hline 20\text{¢} \end{array}$$

Circle the fact family that has the fact you would need to solve the problem.

4. Linn Soo had 12¢ to spend at the yard sale. She bought a teddy bear for 5¢. How much does she have left?

7 cents



$$12 + 5 = 17 \quad 5 + 12 = 17$$

$$17 - 5 = 12 \quad 17 - 12 = 5$$

$$12 - 5 = 7 \quad 12 - 7 = 5$$

$$7 + 5 = 12 \quad 5 + 7 = 12$$

Name _____

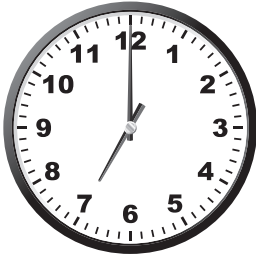
LM 11.15B Chapter 11 Test

Read the word problem. Answer the question.

5. Shima collected 10 shells in a pail. There are 3 white shells. The rest of the shells are black. If Shima picks 1 shell from the pail, what color do you think it will be?

Why did you choose that color? _____

Read each word problem. Solve.



6. Trey's show begins in one hour. The clock shows the time now. What time does his show begin?

_____ : _____

7. Sally has 6 shells to give to others. She wants to give an equal number of shells to her 2 friends. How many shells will Sally give to each friend? Draw a picture.

_____ shells

8. Brandon has 50¢. He gives his brother 40¢. How much money does Brandon have left? Draw a picture or write a two-digit problem to solve.

_____ cents



LM 11.15B Chapter 11 Test

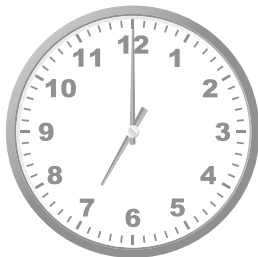
Read the word problem. Answer the question.

5. Shima collected 10 shells in a pail. There are 3 white shells. The rest of the shells are black. If Shima picks 1 shell from the pail, what color do you think it will be?

black

Why did you choose that color? **I chose it because there are 7 black shells and only 3 white ones.**

Read each word problem. Solve.



6. Trey's show begins in one hour. The clock shows the time now. What time does his show begin?

8 : 00

7. Sally has 6 shells to give to others. She wants to give an equal number of shells to her 2 friends. How many shells will Sally give to each friend? Draw a picture.

3 shells

Drawings will vary.

8. Brandon has 50¢. He gives his brother 40¢. How much money does Brandon have left? Draw a picture or write a two-digit problem to solve.

10 cents

Drawings will vary.

$$\begin{array}{r} 50\text{¢} \\ - 40\text{¢} \\ \hline 10\text{¢} \end{array}$$

Name _____

LM 11.15C Word Problems with Money**Read each word problem. Write the problem. Solve.**

1. Joey has 6 dimes and 5 nickels to buy a toy as a Christmas gift. How many cents does he have?

_____ cents



2. Marsha has 2 quarters and 2 nickels to buy an Easter card for her Sunday School teacher. Can she buy a card that costs 65¢?



3. Clara has 1 quarter and 2 dimes. Does she have enough to buy a cookie cutter that costs 40¢?



4. Sonya has 45¢ and Janet has 34¢. How much do they have altogether?

_____ ¢ Can they buy a candy bar

that costs 75¢? _____



5. Lucas had 7 dimes and 8 pennies. Then, he spent 58¢ on a rubber ball. How much does Lucas have left?

_____ cents





LM 11.15C Word Problems with Money

Read each word problem. Write the problem. Solve.

1. Joey has 6 dimes and 5 nickels to buy a toy as a Christmas gift. How many cents does he have?

85 cents

$$\begin{array}{r} 60\text{¢} \\ + 25\text{¢} \\ \hline 85\text{¢} \end{array}$$

2. Marsha has 2 quarters and 2 nickels to buy an Easter card for her Sunday School teacher. Can she buy a card that costs 65¢?

no

$$\begin{array}{r} 50\text{¢} \\ + 10\text{¢} \\ \hline 60\text{¢} \end{array}$$

3. Clara has 1 quarter and 2 dimes. Does she have enough to buy a cookie cutter that costs 40¢?

yes

$$\begin{array}{r} 25\text{¢} \\ + 20\text{¢} \\ \hline 45\text{¢} \end{array}$$

4. Sonya has 45¢ and Janet has 34¢. How much do they have altogether?

79 ¢ Can they buy a candy bar that costs 75¢? yes

$$\begin{array}{r} 45\text{¢} \\ + 34\text{¢} \\ \hline 79\text{¢} \end{array}$$

5. Lucas had 7 dimes and 8 pennies. Then, he spent 58¢ on a rubber ball. How much does Lucas have left?

20 cents

$$\begin{array}{r} 78\text{¢} \\ - 58\text{¢} \\ \hline 20\text{¢} \end{array}$$



LM 11.16A Chapters 10–11 Words and Phrases



<u>Venn diagram</u>	<u>graph</u>
pictograph	bar graph
<u>area</u>	square inch
coordinates	north, south, east and west
key	compass rose
scale	map
add	in all
altogether	sum
total	how many are left
difference	how many more
<u>probability</u>	<u>estimate</u>
subtract	solve

LM 11.16B Problems and Clue Words



1. Maude counted 11 red buds. She counted 23 white buds. How many buds are on the rose bushes altogether?

_____ buds

2. Lincoln liked to count. He counted 11 brown cows in one field. He counted 17 brown and white cows in another field. How many cows were there in all?

_____ COWS

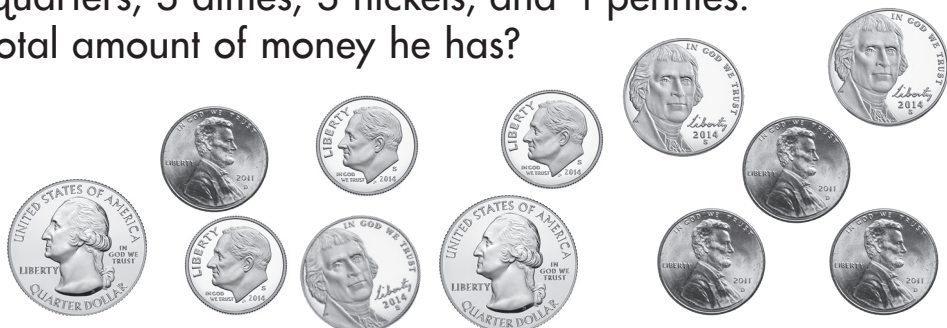


3. Yasmin got two art sets for her birthday. The first set had 12 colored pencils. The second set had 50. What is the sum of the pencils from the 2 sets?

_____ pencils

4. Elijah has 2 quarters, 3 dimes, 3 nickels, and 4 pennies. What is the total amount of money he has?

_____ ¢





LM 11.16B Problems and Clue Words



1. Maude counted 11 red buds. She counted 23 white buds. How many buds are on the rose bushes altogether?

34 buds $11 + 23 = 34$

2. Lincoln liked to count. He counted 11 brown cows in one field. He counted 17 brown and white cows in another field. How many cows were there in all?

28 cows $11 + 17 = 28$

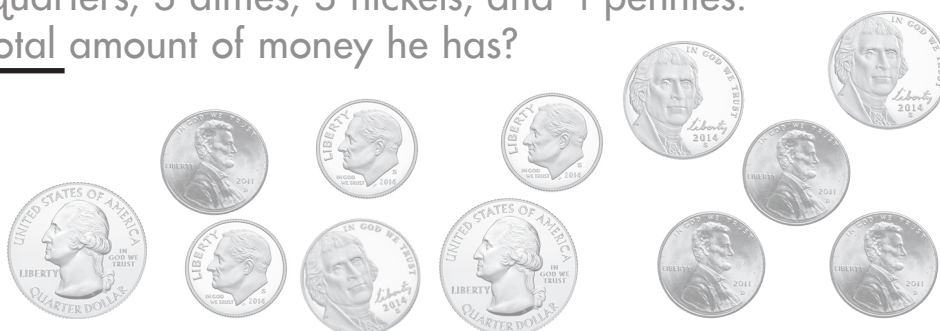


3. Yasmin got two art sets for her birthday. The first set had 12 colored pencils. The second set had 50. What is the sum of the pencils from the 2 sets?

62 pencils $12 + 50 = 62$

4. Elijah has 2 quarters, 3 dimes, 3 nickels, and 4 pennies. What is the total amount of money he has?

99 ¢



LM 11.16C Problems and Clue Words



5. The baker made 48 donuts. Mr. Smith bought 12 for his coworkers. How many donuts are left?

_____ donuts



6. Kayla is sick. Her temperature was 103°F . She took a bath. Now her temperature is 100°F . What is the difference?

_____ $^{\circ}\text{F}$

7. Cooper wants to buy a hat. He has \$8. The hat he wants costs \$12. Cooper needs more money. How many more dollars are needed?

\$ _____



8. Mrs. Pineda put 4 bags of chocolates and 1 bag of caramels into the piñata. Luis hit the piñata and some candy fell out. Is it likely that Luis will find more chocolates or more caramels?

**LM 11.16C Problems and Clue Words**

5. The baker made 48 donuts. Mr. Smith bought 12 for his coworkers.
How many donuts are left?

36 donuts $48 - 12 = 36$



6. Kayla is sick. Her temperature was 103°F . She took a bath. Now her temperature is 100°F . What is the difference?

3 $^{\circ}\text{F}$ $103 - 100 = 3$

7. Cooper wants to buy a hat. He has \$8. The hat he wants costs \$12. Cooper needs more money.
How many more dollars are needed?

\$ 4.00 $12 - 8 = 4$



8. Mrs. Pineda put 4 bags of chocolates and 1 bag of caramels into the piñata. Luis hit the piñata and some candy fell out. Is it likely that Luis will find more chocolates or more caramels?

chocolates

LM11.16D Problems and Clue Words



- 9.** Connor took 1 minute to wash his face, 4 minutes to shampoo his hair, and 2 minutes to brush his teeth. He spent 10 minutes making silly faces in the mirror. How long was Connor in the bathroom?

_____ minutes

- 10.** Jessica's father is 34 years old. Her mother is 32 years old. What is the sum of their ages?

_____ years



- 11.** There are 15 steps from the swing set to the slide. There are 44 steps from the slide to the sand pit. How many steps are there from the swing set to the sand pit?



_____ steps

- 12.** There were 37 birds sitting on the wire. Sixteen birds flew away. How many are left?

_____ birds





LM11.16D Problems and Clue Words

9. Connor took 1 minute to wash his face, 4 minutes to shampoo his hair, and 2 minutes to brush his teeth. He spent 10 minutes making silly faces in the mirror. How long was Connor in the bathroom?



17 minutes $1 + 4 + 2 + 10 = 17$

10. Jessica's father is 34 years old. Her mother is 32 years old. What is the sum of their ages?

66 years $34 + 32 = 66$



11. There are 15 steps from the swing set to the slide. There are 44 steps from the slide to the sand pit. How many steps are there from the swing set to the sand pit?



59 steps $15 + 44 = 59$

12. There were 37 birds sitting on the wire. Sixteen birds flew away. How many are left?

21 birds $37 - 16 = 21$



LM 11.16E Problems and Clue Words



- 13.** Oliver had \$5.40. He bought a guppy for his fish tank. It cost \$2.20. What is the difference?

\$ _____



- 14.** Landon is drawing a comic book. His notebook has 15 pages. He wants to draw 25 pages of comics. How many more pages are needed?



_____ pages

- 15.** Mary has 16 socks in the basket. Jody has 4 socks. If you pick a sock from the basket, is it more likely the sock will belong to Mary or to Jody?



- 16.** There are 18 books on the bookshelf. There are 9 books on the floor. Estimate how many books there are altogether.

about _____ books





LM 11.16E Problems and Clue Words

- 13.** Oliver had \$5.40. He bought a guppy for his fish tank. It cost \$2.20. What is the difference?

$$\begin{array}{r} \$ \quad \underline{\quad 3.20 \quad} \quad \quad \quad \begin{array}{r} 5.40 \\ - 2.20 \\ \hline 3.20 \end{array} \end{array}$$

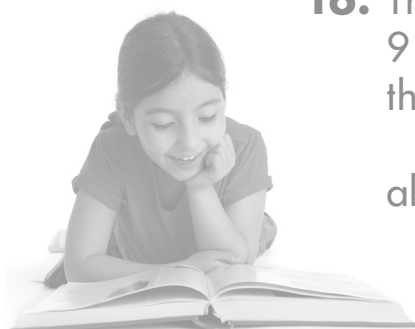


- 14.** Landon is drawing a comic book. His notebook has 15 pages. He wants to draw 25 pages of comics. How many more pages are needed?

$$\begin{array}{r} \underline{\quad 10 \quad} \text{ pages} \quad \quad \quad \begin{array}{r} 25 \\ - 15 \\ \hline 10 \end{array} \end{array}$$

- 15.** Mary has 16 socks in the basket. Jody has 4 socks. If you pick a sock from the basket, is it more likely the sock will belong to Mary or to Jody?

Mary



- 16.** There are 18 books on the bookshelf. There are 9 books on the floor. Estimate how many books there are altogether. **Answers will vary.**

about 30 books



DM 11.14A

Garage Sale

