

PART I GET STARTED**Today's Mathematics**

We will choose an operation for a situation, write an expression, calculate, and check whether the answer is reasonable.

Essential Question

How do you know which operation to choose when solving a real-life problem?

DO NOW

Find each value. Estimate one answer to check whether it is reasonable.

1. $684 + 297$

2. $900 - 468$

3. $24 \cdot 16$

4. $728 \div 14$

SEE IT

A cleanup team recorded 2,130 pounds of trash and 183 pounds of recyclables in 2010.

1. What operation finds the total amount collected? Write, but do not evaluate, the expression.

2. What operation finds how many more pounds of trash than recyclables were collected?

3. Estimate the answer to each question. How can the estimates help you check the exact answers?

QUICK WRITE | 2 MINUTES

Describe how the words in a problem help you choose an operation.

PART II INVESTIGATE

CHOOSING AN OPERATION

For each situation, identify what is being found, choose an operation, write an expression, and calculate.

Situation	Quantity sought	Operation / reason	Expression / value
Trash: 3,975 lb in 2011 and 4,970 lb in 2012. Find the total.			
6,390 lb trash and 1,095 lb recyclables. Find the difference.			
The 2014 estimate is twice the 2011 amount: 3,975 lb.			
1,762 tickets, including 241 balcony seats. Find regular seats.			

COMPARE

Choose one row. Explain how you know your operation matches the question being asked.

PART III MAKE SENSE AND PRACTICE

WHAT WE CAN CONCLUDE

1. Name the quantity the question asks you to find. 2. Use the relationship between the quantities to select an operation. 3. Estimate first, calculate exactly, and check that the result is reasonable.

WORKED MODEL

A theater sold 1,762 tickets, including 241 balcony tickets. Regular tickets: $1,762 - 241 = 1,521$. Check: $1,521 + 241 = 1,762$.

FOCUSED PRACTICE

Show a clear strategy and enough work that another student could follow your reasoning.

1. Find $9,366 - 8,549$. Use an inverse operation to check.
2. A school packs 546 notebooks equally into 78 boxes. How many notebooks go in each box?

CHALLENGE

Create a new problem that uses today's idea and has a whole-number answer. Trade with a partner and solve.

MATH WRITE | 5 MINUTES

Explain how estimation and inverse operations can help you decide whether a whole-number answer is reasonable.

PART IV PUZZLE PRACTICE

Homework

Name _____ Date _____

DID YOU HEAR ABOUT THE ...

Complete each exercise. Find the answer in the answer bank. Write its word in the box with the exercise letter.

A. $3,328 + 763$

B. $6,462 + 2,841$

C. $2,857 + 2,788$

D. $8,583 - 4,123$

E. $6,054 - 1,618$

F. $3,527 - 2,072$

G. $73 \cdot 26$

H. $235 \cdot 65$

I. $528 \cdot 344$

J. $864 \div 24$

K. $432 \div 72$

L. $8,960 \div 224$

M. $5,409 \div 50$

N. $7,233 \div 164$

O. Piano lessons cost \$20 per week. What is the cost for 16 weeks?

P. The scores of two football games were 28 and 35. What was the total?

Q. Fourteen boxes hold 980 notebooks equally. How many are in each box?

320 / FOR	4,091 / SPIDER	9,303 / THAT	5,645 / ASKED
4,460 / TO	4,436 / TEST	1,455 / DRIVE	1,898 / A
15,275 / CAR	181,632 / BECAUSE	36 / HE	6 / WANTED
40 / TO	$108\frac{9}{50}$ / TAKE	$44\frac{17}{164}$ / IT	63 / A
70 / BUMPER	60 / SIGN	18,622 / WEB	11 / LIMIT

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	