

End-of-Year Test

Part 1

Solve the problems in Part 1 without using a calculator. Use the pages in the *Student Guide* Reference section.

1. Solve the followings problems using the partial quotient method and one other method.

Partial Quotient	Second Method
A. $6 \overline{)4206}$	
B. $7 \overline{)2457}$	
C. $9 \overline{)558}$	

- D. Show or tell how you can use estimation to make sure your answer to Question 1A is reasonable.

- E. Show how you can use multiplication to check your answer for Question 1C.

2. **A.** Lee Yah has 3278 marbles. She wants to share them with 6 friends. How many marbles will each person get? Show how you solved this.
- B.** Will there be any marbles left over? If so, how many?
3. **A.** The students at Bessie Colman School are going to see a play at the high school. There are 412 students and 15 adults attending. They will be traveling by bus. Each bus can hold 70 people in addition to the driver. How many buses will they need to make sure everyone can go on the trip? Show your work.
- B.** The teachers want everyone to sit together in the center section of the auditorium. There are 20 seats in each row. How many rows will they need for everyone? Show how you decided.
4. Estimate the answers to the following problems. Explain your strategy.
- A.** $497,000 \div 50 =$ **B.** $215,000 \div 70 =$

5. Irma and Keenya needed to solve $32,418 \div 8$.

A. Irma started the problem this way. Finish it using her method.

$$\begin{array}{r|l} 8 \overline{)32,418} & 4000 \\ \underline{32,000} & \\ 418 & 50 \\ \underline{400} & \\ 18 & \end{array}$$

B. Show where Irma got 4000 and the 50.

C. Keenya started to use a rectangle to solve the same problem. Complete his strategy by filling in the blanks.

$$32,418 \div 8 =$$

$8 \times 4000 = 32000$	4000
$8 \times 50 = \underline{\hspace{2cm}}$	50
$8 \times 2 = \underline{\hspace{2cm}}$	2

$$\begin{array}{r} 32,418 \\ - 32,000 \\ \hline 418 \\ - \boxed{} \\ \hline \boxed{} \\ - 16 \\ \hline 2 \end{array}$$

$$400 + \boxed{} + 2 = 452 \text{ R}2$$

D. Compare Irma's and Keenya's methods. How are they alike? How are they different?

Part 2

You may use any of the tools you use in class. For example, you may use a ruler, calculator, hundredths circle, and pages in the *Student Guide Reference* section.

6. A. Complete the table. Write the fractions as decimals and using words.

Fraction	Decimal	Number in Words
$\frac{51}{100}$		
$\frac{6}{10}$		
$\frac{3}{50}$		
$\frac{965}{1000}$		

- B. Write the decimals you wrote in the table in order from smallest to largest.

7. John solved the problem $1.5 + 2.15 = 2.30$. do you agree with John's solution? Explain why or why not. If you do not agree, make sure to show or tell how to find the correct solution in your explanation.

8. Choose a strategy to solve each problem. Show your solution strategy.

A. $3.56 + 1.4 =$

B. $14.3 + 7.92 =$

C. $8.64 - 4.26 =$

D. $29.053 - 11.5 =$

E. Show or tell how you used estimation to make sure your answer to Question 8B is reasonable.

F. Round your answer for Question 8A to the nearest whole number.

G. Round your answer to Question 8D to the nearest tenth.

9. Jacob used the rectangle model to solve 3.6×5.4 .

	5	0.4
3	$3 \times 5 = \underline{\hspace{2cm}}$	$3 \times 0.4 = \underline{\hspace{2cm}}$
0.6	$0.6 \times 5 = \underline{\hspace{2cm}}$	$0.6 \times 0.4 = \underline{\hspace{2cm}}$

Complete Jacob's work. Find the product by first finding each partial product.

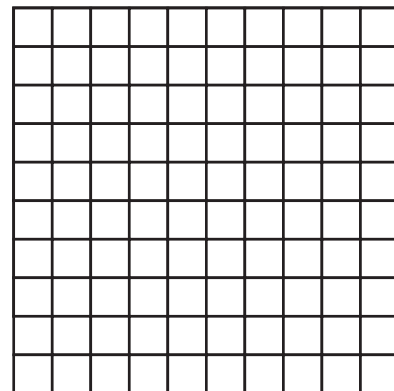
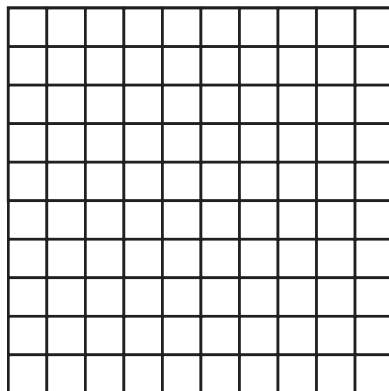
10. **A.** Estimate the answer for 5.24×3.2 . Show or tell how you made your estimate.

B. Use a paper-and-pencil method to find an exact answer for 5.24×3.2 . Show your work.

11. $1.8 \div 0.09$

A. Estimate the quotient. Will it be greater than or less than 1.8?

B. Solve $1.8 \div 0.09$ using the grids below.



12. For each problem, circle the better estimate. Do not find the exact answer.

- | | | |
|---|-------------|-------------|
| A. $\frac{1}{6} + \frac{1}{3} =$ | less than 1 | more than 1 |
| B. $\frac{2}{8} + \frac{4}{5} =$ | less than 1 | more than 1 |
| C. $\frac{7}{10} + \frac{8}{15} + \frac{5}{12} =$ | less than 2 | more than 2 |
| D. $1\frac{2}{3} - \frac{5}{6} =$ | less than 1 | more than 1 |
| E. $2\frac{3}{4} - \frac{7}{10} =$ | less than 2 | more than 2 |
| F. $\frac{2}{3} \times 2 =$ | less than 1 | more than 1 |
| G. $\frac{3}{4} \times \frac{1}{3} =$ | less than 1 | more than 1 |
| H. $\frac{1}{2} \div 4 =$ | less than 1 | more than 1 |
| I. $6 \div \frac{1}{2} =$ | less than 1 | more than 1 |

13. Choose a strategy to solve each problem. Write each answer in simplest form.

A. $\frac{3}{5} + \frac{5}{8} =$

B. $1\frac{7}{10} + 5\frac{2}{3} =$

C. $\frac{9}{10} - \frac{3}{4} =$

D. $3\frac{3}{4} - 2\frac{1}{12} =$

E. Show or tell how you used estimation to make sure your answer to Question 13B is reasonable.

- 14.** Choose a strategy to solve each problem. Write each answer in simplest form.

A. $4 \times \frac{3}{4} =$

B. $\frac{1}{2} \times \frac{5}{8} =$

C. $7 \div \frac{1}{6} =$

D. $\frac{1}{2} \div 5 =$

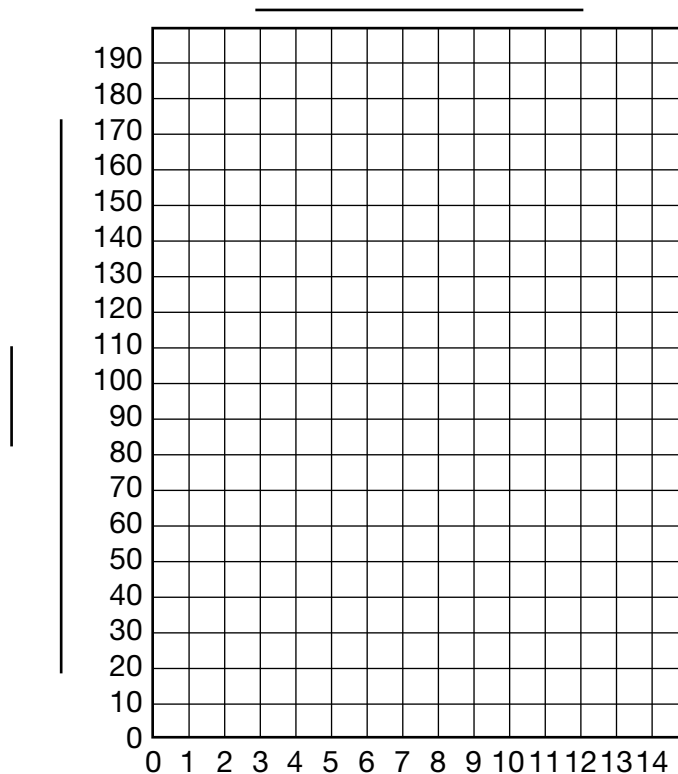
- E.** Draw a picture to show how you solved Question 14D.

15. The students at Bessie Coleman Elementary School started a paper recycling project. Each week, the students collect the used paper from each classroom. They weigh the paper and then take it to a recycling center. The students made a data table showing the total amount of paper they recycled so far. Here is their data table after 4 weeks.

Paper Recycling

<i>T</i> Time in Weeks	<i>N</i> Total Number of Pounds Recycled
1	37
2	78
3	
4	154

Use the data table to make a graph showing the total number of pounds of paper the students have recycled. Draw a best-fit line on your graph. Use your best-fit line to estimate the number of pounds recycled after three weeks. Add this number to your data table.



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- 16.** Use your graph and data table from Question 15 to solve the following problems.
- A.** If, after four weeks, the students recycled a total of 154 pounds of paper, about how many pounds of paper are they recycling per week? Show or tell how you found your answer.
- B.** Choose a point on the line and use it to write a fraction to show the ratio of the number of pounds of paper recycled to time in weeks.
- C.** For every 117 pounds of paper students recycle, they can save one average-size tree. About how many weeks will students have to recycle to save one tree? Show or tell how you found your answer.
- D.** If there are 36 weeks in a school year, about how many trees can students save in one school year? Show how you solved this problem.

Name _____ Date _____

End-of-Year Test Feedback Box

	Yes ...	Yes, but ...	No, but ...	No ...
MPE1. Know the problem. I read the problem carefully. I know the questions to answer and what information is important. [Q# 4–5, 16]				
MPE2. Find a strategy. I choose good tools and an efficient strategy for solving the problem. [Q# 1A–C, 2–4, 8A–E, 13–14]				
MPE3. Check for reasonableness. I look back at my solution to see if my answer makes sense. If it does not, I try again. (Q# 1D, 8E, 10–12, 13E)				
MPE4. Check my calculations. If I make mistakes I correct them. (Q# 1E)				
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking. [Q# 2–4, 7, 16]				
MPE6. Use labels. I use labels to show what numbers mean. [Q# 2–3, 16]				