

5th Grade Math

Parent Information

Packet #3

- Recommended daily math practice time: 20 minutes
- There are 4 “Unit Assessments” to review key concepts from this year. Answer keys are at the end of the document. The recommendation is to work through all of these over the course of 2 weeks, at a comfortable pace for your student. Skip any problems not learned yet, or choose to explore how to work using correct answer.
- There are 15 “fluency practice” pages – addition, subtraction, multiplication, division of whole numbers, decimals, and fractions. Recommendation is to work 5-10 minutes each day from pages of your student’s choice. However, the goal is practice and remembering how to work problems correctly. Adjust the number of problems based on how long it takes your student to complete. There are more than 2 weeks’ worth of fluency practice to allow for choice and additional practice in the summer if desired. These can all be checked with a calculator. Students are encouraged to correct any problems missed.
- There are 6 “Activity” pages – Recommendation is 2-3 “Activities” per week for 10 minutes each activity. These activities can be repeated for extra practice. Answer keys are at the end of the document.

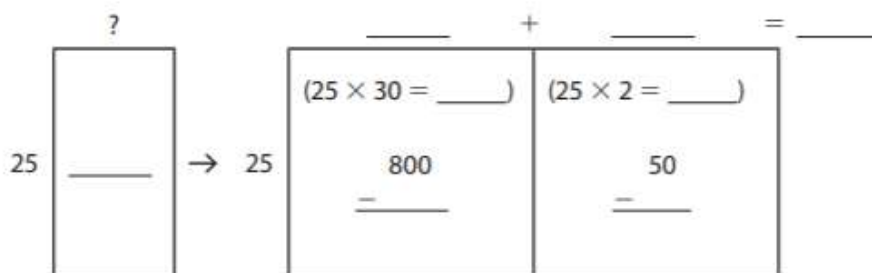
Additional Ideas that can be practiced daily or every other day:

- Read and write decimals to thousandths using standard form, word form, and expanded form.
Example: 347.392 is written as $3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ and is read three hundred forty seven and three hundred ninety two thousandths.
- Multiply multi-digit whole numbers (up to three-digit by four-digit factors)
Examples: 6451×257 ; 789×316 ; 2345×9 ; etc.
- Add, subtract, multiply, and divide decimals to hundredths.
- Add and subtract fractions with unlike denominators.
- Continue practicing multiplication and division facts up to 12×12 (or higher if desired). Your student could create their own flash cards with a fact and a picture/array to illustrate. Another option is to write the fact families for the facts. Ex: $5 \times 2 = 10$; $2 \times 5 = 10$; $10 \div 2 = 5$; $10 \div 5 = 2$.

Solve the problems.

- 1 Fill in the blanks to complete the area model to solve $800 \div 25$.

$800 \div 25$ is the same as _____ \times ? = _____



$800 \div 25 =$ _____

- 2 Which expressions have the same value as the product of 0.04×5.4 ? Circle the letter for all that apply.

- A 21.6×0.1
 B 2.16×0.01
 C 21.6×0.01
 D 2.16×0.1
 E 216×0.01

- 3 Tell whether each equation is *True* or *False*.

- a. $24.02 + 35.60 = 59.8$ True False
 b. $74.93 - (28.35 + 34.6) = 12.08$ True False
 c. $47.4 - (16.15 + 23.23) = 8.02$ True False
 d. $925.1 - 81.63 = 843.47$ True False



Unit 1 Unit Assessment *continued***Form B**

4 Which decimal represents $4 \times 1,000 + 9 \times 100 + 2 \times \frac{1}{10} + 5 \times \frac{1}{1,000}$?

A 4,900.250

C 4,090.025

B 4,900.205

D 4,009.025

5 A baseball team practices 4 times a week. Each practice lasts for 115 minutes. The team practiced for 12 weeks during the season.

Part A

How many minutes did the team practice during the season?

Show your work.

Part B

How many hours did the team practice during the season? (Hint: Remember that there are 60 minutes in one hour.)

Show your work.

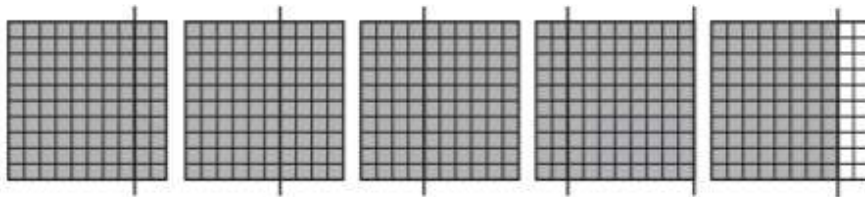


Unit 1 Unit Assessment *continued***Form B**

- 6** Matt is helping to set up drinks and snacks for a luncheon.

Part A

Matt has 4.8 liters of iced tea to pour into pitchers. Each pitcher holds 0.8 liter of iced tea. If Matt pours an equal amount of iced tea into each pitcher, how many pitchers does he fill? Matt drew the model below to show how many pitchers he fills. Is Matt's model correct? Explain.



Part B

Matt has a 13.5-ounce bag of raisins and a 25.7-ounce bag of granola mix. He puts an equal amount of the combined raisin and granola mix into each of 4 large bowls. How much mix does Matt put in each bowl?

Show your work.

Unit 1 Unit Assessment *continued***Form B**

7 Write $>$, $<$, or $=$ to complete each comparison.

a. 0.362 _____ 0.326

b. 0.07 _____ 0.070

c. 2.83 _____ 2.38

d. 4.107 _____ 4.17

e. 62.5 _____ 62.51

8 A fabric store sells close-out fabrics for \$2.14 a yard. A customer buys 8 yards of fabric. How much does the customer pay for the fabric?

Show your work.

9 Choose *Yes* or *No* to tell whether the expression is equivalent to 427×35 .

a. $10,000 + 4,000 + 900 + 40 + 5$ Yes No

b. $(427 \times 3) + (427 \times 5)$ Yes No

c. $(427 \times 30) + (427 \times 5)$ Yes No

d. $(400 \times 35) + (20 \times 35) + (7 \times 35)$ Yes No



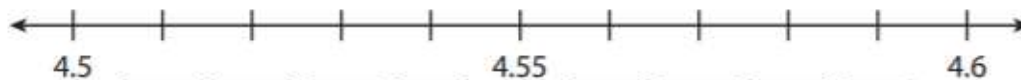
Unit 1 Unit Assessment *continued***Form B**

- 10** Amber divides powers of 10 using exponents. She says that 0.3 divided by 10^2 decreases the value of the 3. Do you agree with Amber? Explain your thinking.

- 11** Amanda and Paula use an online tool to time how long it takes to download songs. Amanda records a download time of 4.575 minutes for her song. Paula records a download time of 4.565 minutes for her song.

Part A

Label the number line below with hundredths. Then mark and label two points to show Amanda's and Paula's download times.

**Part B**

Complete the sentences about Amanda's and Paula's download times. Use the words and decimals in the box. Not all the items in the box will be used.

slower	faster	4.5	4.6	tenth	hundredth
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- a. Rounded to the nearest _____, both times are the same.
- b. Both times are closer to _____ than _____.
- c. Paula's download time is _____ than Amanda's download time.



Unit 1 Unit Assessment *continued*

Form B

- 12** Ian has three pieces of ribbon. The lengths of the ribbons are 136.7 centimeters, 136.85 centimeters, and 104.9 centimeters. What is the difference in length between the longest and shortest pieces of ribbon?

Show your work.

- 13** Choose *Yes* or *No* to tell whether the expression is equivalent to 3.7.

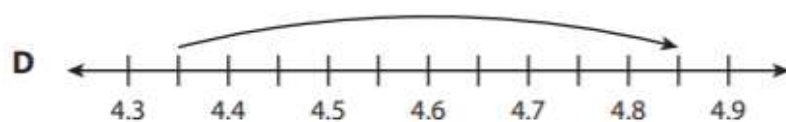
- a. $37.0 \div 10$ Yes No
 b. 0.37×100 Yes No
 c. 0.37×10 Yes No
 d. $0.37 \div 100$ Yes No

- 14** Rachel ran 4.35 miles in a track event. Then she ran 0.5 mile home after the event. Which model represents the sum of the number of miles Rachel ran?

A 4 ones + 4 tenths



C 4 ones + 3 tenths + 10 hundredths



Ready® Mathematics**Unit 2 Unit Assessment****Form B****Solve the problems.**

- 1** A group of campers walked $4\frac{2}{3}$ miles along a hiking trail. Another group of campers walked $\frac{1}{4}$ of that distance with the first group before turning off onto another trail. How many miles did the two groups of campers walk with each other?

Show your work.

- 2** Kaitlyn has a 30-foot length of ribbon. She cuts the ribbon into 7 pieces of equal length. The length of each piece of ribbon will fall between which two whole-number lengths?

- A** 2 and 3 feet
B 3 and 4 feet
C 4 and 5 feet
D 5 and 6 feet

- 3** Draw a model to show $2 \div \frac{1}{3}$. Then write the related multiplication equation that also solves the problem.

$$2 \div \frac{1}{3} = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$



Unit 2 Unit Assessment *continued*

Form B

4 Tell whether each statement is *True* or *False*.

- a. The product of $\frac{3}{8} \times \frac{1}{7}$ is greater than $\frac{1}{7}$. True False
- b. The product of $\frac{9}{4} \times \frac{2}{5}$ is greater than $\frac{2}{5}$. True False
- c. The product of $\frac{8}{3} \times \frac{1}{7}$ is less than $\frac{1}{7}$. True False
- d. The product of $\frac{4}{9} \times \frac{2}{5}$ is less than $\frac{2}{5}$. True False

5 Aiden mixed together $1\frac{1}{2}$ quarts of orange juice and $2\frac{1}{4}$ quarts of pineapple juice. Then he added $1\frac{1}{4}$ quarts of seltzer to make punch. How much more juice than seltzer did Aiden use to make punch?

Show your work.

6 Jason walks a 5-mile scenic walkway that stretches from the west to the east end of a park. There is a distance marker at each $\frac{1}{4}$ mile and one at the east end of the walkway. Which expression can be used to find the number of markers along the walkway? Circle all correct answers.

- A $\frac{5}{4} \times 1$ D 5×4
- B $5 \div \frac{1}{4}$ E $5 \times \frac{1}{4}$
- C $\frac{1}{4} \div 5$

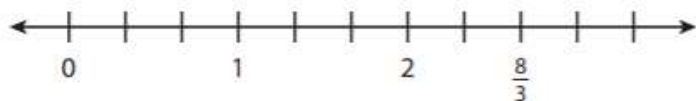


Unit 2 Unit Assessment *continued***Form B**

- 7** Consider the expression $\frac{8}{3} \times \frac{4}{4}$.

Part A

Shade the number line to represent $\frac{8}{3} \times \frac{4}{4}$.

**Part B**

Explain how the product compares to the factor $\frac{8}{3}$.

Part C

What whole number can the factor $\frac{4}{4}$ be written as? Explain how multiplying $\frac{8}{3}$ by the factor $\frac{4}{4}$ is similar to multiplying $\frac{8}{3}$ by this whole-number factor.



Unit 2 Unit Assessment *continued***Form B**

- 8** In a tutoring session, $\frac{3}{4}$ hour was spent reviewing math problems. Maya attended $\frac{1}{3}$ of the tutoring session. How much time did Maya spend at the tutoring session?

Show your work.

- 9** Eli uses $2\frac{1}{3}$ cups of strawberries and $3\frac{3}{8}$ cups of blueberries to make a fruit salad. Which is a reasonable estimate for the amount of fruit Eli uses to make the fruit salad?

A between 5 and $5\frac{1}{2}$ cups

B between $5\frac{1}{2}$ and 6 cups

C between 6 and $6\frac{1}{2}$ cups

D between $6\frac{1}{2}$ and 7 cups

- 10** A poster is $\frac{2}{3}$ yard wide and $\frac{5}{3}$ yards long. How many square yards of the wall does the poster cover?

Show your work.



Unit 2 Unit Assessment *continued***Form B**

- 11** Consider the expression $\frac{1}{2} \div 4$.

Part A

Draw a model to represent $\frac{1}{2} \div 4$.

Part B

Use your model to find the value of $\frac{1}{2} \div 4$. Then write the related multiplication equation.

$$\frac{1}{2} \div 4 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

- 12** Alana has $\frac{1}{4}$ pound of shredded cheese. She used an equal amount of the cheese on each of 4 pizzas. What fraction of a pound of cheese did Alana use on each pizza?

Show your work.

Unit 2 Unit Assessment *continued***Form B**

- 13** Abby is exploring multiplying $\frac{2}{5}$ by different fractions.

Part A

Abby says that the product of $\frac{3}{4} \times \frac{2}{5}$ is less than $\frac{2}{5}$. Is Abby correct? Explain.

Part B

Abby says that the product of $\frac{4}{3} \times \frac{2}{5}$ is less than $\frac{2}{5}$. Is Abby correct? Explain.

- 14** Tell whether each statement about the fraction $\frac{5}{9}$ is correct. Choose Yes or No.

- a. $\frac{5}{9}$ is the same as $9 \div 5$. Yes No
- b. $\frac{5}{9}$ is the same as $5 \div 9$. Yes No
- c. $\frac{5}{9}$ is the same as $5 \times \frac{1}{9}$. Yes No
- d. $\frac{5}{9}$ is the same as $9 \times \frac{1}{5}$. Yes No

Ready® Mathematics**Unit 3 Unit Assessment****Form B****Solve the problems.**

- 1** Amber has 6 cousins. Her friend Ashley has 2 fewer than 3 times as many cousins as Amber has. Write an expression for the number of cousins Ashley has.

- 2** The rules for two number patterns are “add 2” and “add 1.”

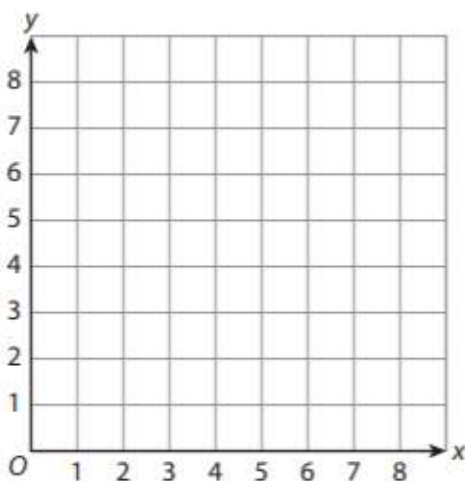
Part A

Complete the table below.

Add 2	Add 1	Ordered Pairs (x, y)
0	0	(0, 0)
2	1	(2, 1)
		()
		()
		()

Part B

Plot the ordered pairs on the coordinate plane below.



Unit 3 Unit Assessment *continued***Form B**

- 3** Look at the expression below. Tell whether each statement about its value is *True* or *False*.

$$\frac{1}{4} \times (224 - 176)$$

- a. It is greater than the value of $224 - 176$. True False
- b. It is greater than the value of $\frac{1}{3} \times (224 - 176)$. True False
- c. It is less than the value of $224 - 176$. True False
- d. It is less than the value of $\frac{1}{8} \times (224 - 176)$. True False

- 4** Jacob wants to represent "15 times the sum of 2 and 9." He writes the expression $(15 \times 2) + 9$. Is Jacob's expression correct? Explain.

- 5** Which expression has the same value as the expression $(7 \times 6) + (9 \div 3)$?

- A** $7 \times (6 + 9) \div 3$
- B** $7 \times 6 + \frac{9}{3}$
- C** $7 \times \frac{6+9}{3}$
- D** $\frac{7 \times 6}{9-3}$



Unit 3 Unit Assessment *continued***Form B**

- 6** A souvenir store sells plastic cups for \$2 each and mugs for \$8 each.

Part A

Write a number pattern for the costs of 0, 1, 2, 3, 4, and 5 plastic cups.
Then write a second number pattern for the costs of 0, 1, 2, 3, 4, and 5 mugs.

Part B

How do the corresponding terms of the two number patterns compare?

- 7** Jody makes bracelets for 25 minutes on Saturday and Sunday mornings. On Saturday and Sunday afternoons, she makes matching necklaces for 55 minutes. Evaluate the expression $2 \times (25 + 55)$ to find how many minutes Jody makes jewelry on the weekends.

Show your work.



Unit 3 Unit Assessment *continued***Form B**

- 8** Popcorn costs \$4 for a small bag and \$9 for a jumbo bag. Samir creates two patterns to compare the costs. He writes ordered pairs in the form (small bag, jumbo bag) for the corresponding numbers of bags. Which ordered pairs could be on Samir's list? Circle all correct answers.
- A** (8, 13)
 - B** (12, 27)
 - C** (16, 36)
 - D** (18, 8)
 - E** (20, 45)
- 9** Which expression is NOT 6 times the value of the expression $987 - 123$?
- A** $6 \times (987 - 123)$
 - B** $(987 \times 6) - (123 \times 6)$
 - C** $(987 - 123) \times 6$
 - D** $6 \times 987 - 123$



Unit 3 Unit Assessment *continued***Form B**

- 10** An online store sells plain magnets for \$3 and magnets with names for \$5.

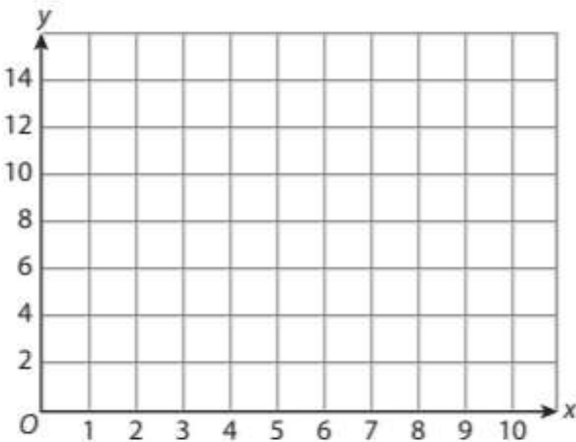
Part A

Todd makes a table to compare the costs of the magnets. Complete the pattern in the first two columns of the table. Then write the ordered pairs for the corresponding terms in the third column.

Cost of plain magnets (x) (in dollars)	Cost of name magnets (y) (in dollars)	Ordered Pairs (x, y)
0	0	(0, 0)
		()
		()
		()

Part B

Graph the ordered pairs.

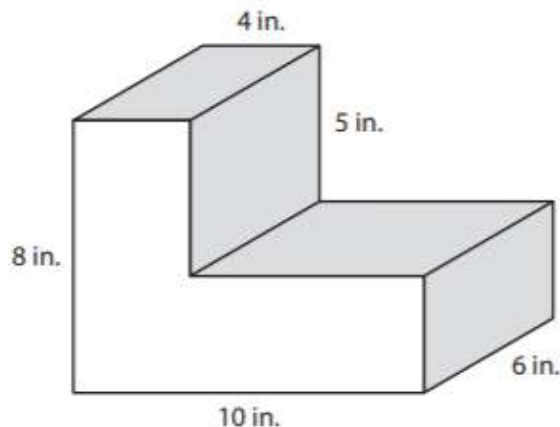
**Part C**

Describe the relationship between the corresponding terms of the two patterns.

Ready® Mathematics**Unit 4 Unit Assessment****Form B**

Solve the problems.

- 1** Which expression can be used to find the volume, in cubic inches, of the solid shown? Choose all that apply.



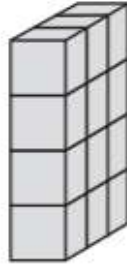
- A** $(10 \times 6 \times 3) + (6 \times 3 \times 4)$
- B** $(8 \times 4 \times 6) + (3 \times 6 \times 6)$
- C** $(6 \times 3 \times 6) + (6 \times 5 \times 4)$
- D** $(5 \times 6 \times 4) + (3 \times 4 \times 5)$
- E** $(4 \times 5 \times 6) + (3 \times 6 \times 10)$
- 2** A tailor is adding lace edging to 9 gowns. She needs 50 feet of lace for each gown. At the fabric store, lace is sold by the yard. How many yards of lace does the tailor need to buy for all 9 gowns? (1 yard = 3 feet)

Show your work.



Unit 4 Unit Assessment *continued***Form B**

- 3** The figure shown is built from unit cubes.

**Part A**

What is the volume of the figure, in cubic units? Explain.

Part B

Jesse builds a different rectangular prism using the same number of unit cubes as in the figure above. Describe what Jesse's figure could look like.

- 4** A rectangular shipping crate has a length of 5 feet, a width of 4 feet, and a height of 3 feet. What is the volume of the shipping crate?

Show your work.



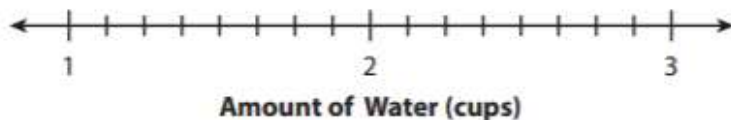
Unit 4 Unit Assessment *continued***Form B**

- 5** A laboratory worker recorded the amount of water remaining in different beakers after being heated. The list below shows the amount of water remaining in each beaker, in cups.

$$1\frac{1}{8}, 2\frac{3}{4}, 2\frac{1}{2}, 1\frac{3}{4}, 1\frac{1}{2}, 2\frac{3}{4}, 1\frac{1}{2}, 1\frac{1}{8}$$

Part A

Create a line plot of the data.

Water Remaining in Beakers**Part B**

Alicia says that if the water remaining in the beakers is combined and then split equally among all the beakers, each beaker would contain $1\frac{7}{8}$ cups of water. Is Alicia correct? Explain.



Unit 4 Unit Assessment *continued***Form B**

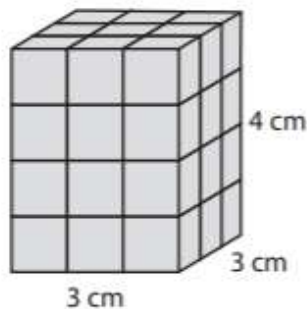
- 6** How many centimeters are equivalent to 400 meters?

$1 \text{ meter} = 100 \text{ centimeters}$

- A** 4 centimeters
B 40 centimeters
C 4,000 centimeters
D 40,000 centimeters
- 7** Ian has a storage box in the shape of a rectangular prism. The box has a square base with sides that are 2 feet long. The height of the storage box is 5 feet. What is the volume of Ian's storage box?

Show your work.

- 8** Cecilia used unit cubes to make the figure shown.



What is the volume of Cecilia's figure? Explain your answer by describing the number of layers and number of cubes.



Unit 4 Unit Assessment *continued***Form B**

- 9** Rectangular prism P is 6 inches long, 4 inches wide, and 3 inches tall. Choose *Yes* or *No* to tell whether each rectangular prism described below has the same volume as rectangular prism P .
- a. 5 inches long, 4 inches wide, 2 inches tall Yes No
- b. 8 inches long, 3 inches wide, 3 inches tall Yes No
- c. 4 inches long, 2 inches wide, 9 inches tall Yes No
- d. 6 inches long, 3 inches wide, 8 inches tall Yes No
- 10** Romulo has a recipe for fruit punch that uses $1\frac{1}{2}$ gallons of orange juice. He wants to triple the recipe for a family party.

1 quart = 2 pints 1 gallon = 4 quarts
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Part A

How many quarts of orange juice does Romulo need for the party?

Show your work.

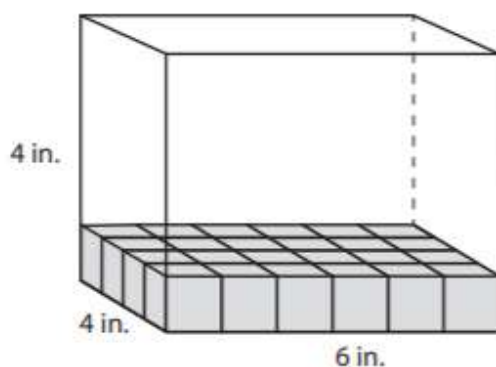
Part B

How many pints of orange juice does Romulo need for the party?

Show your work.

Unit 4 Unit Assessment *continued***Form B**

- 11** The volume of a rectangular prism is 216 cubic centimeters. Its square base has sides that are 6 centimeters long. What is the height of the rectangular prism?
- A** 100 centimeters
B 36 centimeters
C 12 centimeters
D 6 centimeters
- 12** Manuel has partially filled a box with unit cubes to find its volume. He needs 4 layers of cubes to fill the box. How could you use Manuel's method to find the volume of the box? How could you use the volume formula to find the box's volume? Are the answers the same? Explain.



Show your work.

Add within 1,000,000.

Form B

$$\begin{array}{r} \mathbf{1} \quad 3,597 \\ + \quad 307 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{2} \quad 644,544 \\ + \quad 4,567 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{3} \quad 2,020 \\ + \quad 8,019 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{4} \quad 42,991 \\ + \quad 12,009 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{5} \quad 234,432 \\ + \quad 876 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{6} \quad 705,626 \\ + \quad 25,261 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{7} \quad 64,751 \\ + \quad 429 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{8} \quad 205,336 \\ + \quad 204,336 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{9} \quad 17,210 \\ + \quad 15,801 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{10} \quad 8,924 \\ + \quad 8,157 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{11} \quad 749,241 \\ + \quad 49,241 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{12} \quad 53,854 \\ + \quad 9,945 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{13} \quad 133,333 \\ + \quad 777,777 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{14} \quad 908,847 \\ + \quad 1,780 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{15} \quad 28,764 \\ + \quad 18,145 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{16} \quad 6,632 \\ + \quad 3,370 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{17} \quad 22,552 \\ + \quad 552 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{18} \quad 430,999 \\ + \quad 70,004 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{19} \quad 33,678 \\ + \quad 11,876 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{20} \quad 76,356 \\ + \quad 7,626 \\ \hline \end{array}$$



Subtract within 1,000,000.

Form B

$$\begin{array}{r} \mathbf{1} \quad 13,445 \\ - \quad 522 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{2} \quad 8,789 \\ - 7,987 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{3} \quad 654,631 \\ - 65,432 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{4} \quad 70,338 \\ - 13,074 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{5} \quad 162,478 \\ - 81,759 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{6} \quad 518,018 \\ - 8,515 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{7} \quad 71,717 \\ - 7,171 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{8} \quad 51,120 \\ - 25,560 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{9} \quad 6,536 \\ - 5,372 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{10} \quad 833,021 \\ - 312,110 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{11} \quad 596,454 \\ - 9,393 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{12} \quad 626 \\ - 262 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{13} \quad 70,000 \\ - 2,345 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{14} \quad 28,776 \\ - 887 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{15} \quad 437,673 \\ - 9,895 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{16} \quad 32,131 \\ - 30,881 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{17} \quad 501,501 \\ - 333,333 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{18} \quad 6,803 \\ - 4,806 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{19} \quad 966,006 \\ - 414 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{20} \quad 14,568 \\ - 3,725 \\ \hline \end{array}$$



Multiply.

Form B

$$\begin{array}{r} \mathbf{1} \quad 305 \\ \times 22 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{2} \quad 7,770 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{3} \quad 178 \\ \times 32 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{4} \quad 2,332 \\ \times 91 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{5} \quad 6,052 \\ \times 25 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{6} \quad 629 \\ \times 82 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{7} \quad 114 \\ \times 44 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{8} \quad 5,256 \\ \times 76 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{9} \quad 555 \\ \times 99 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{10} \quad 1,136 \\ \times 34 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{11} \quad 4,444 \\ \times 55 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{12} \quad 861 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{13} \quad 230 \\ \times 58 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{14} \quad 142 \\ \times 111 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{15} \quad 375 \\ \times 805 \\ \hline \end{array}$$

$$\begin{array}{r} \mathbf{16} \quad 125 \\ \times 125 \\ \hline \end{array}$$



Multi-Digit Division—Skills Practice

Name: _____

Divide 3- and 4-digit dividends with mental math on some steps.

Form B

1

$$11 \overline{)286}$$

2

$$20 \overline{)8,100}$$

3

$$50 \overline{)850}$$

4

$$21 \overline{)1,155}$$

5

$$25 \overline{)1,150}$$

6

$$40 \overline{)560}$$

7

$$60 \overline{)1,380}$$

8

$$22 \overline{)792}$$

9

$$12 \overline{)1,464}$$

10

$$31 \overline{)992}$$

11

$$20 \overline{)540}$$

12

$$30 \overline{)6,330}$$



Multi-Digit Division—Skills Practice

Name: _____

Divide 3-, 4-, and 5-digit dividends with mental math on some steps.

Form B

1

$$50 \overline{)850}$$

2

$$20 \overline{)6,100}$$

3

$$21 \overline{)462}$$

4

$$31 \overline{)1,674}$$

5

$$22 \overline{)2,002}$$

6

$$11 \overline{)715}$$

7

$$30 \overline{)720}$$

8

$$25 \overline{)8,350}$$

9

$$25 \overline{)11,250}$$

10

$$50 \overline{)61,700}$$

11

$$50 \overline{)26,150}$$

12

$$20 \overline{)44,440}$$



Divide 3-, 4-, and 5-digit dividends.

Form B

1

$$74 \overline{)592}$$

2

$$30 \overline{)2,580}$$

3

$$56 \overline{)5,936}$$

4

$$16 \overline{)768}$$

5

$$33 \overline{)825}$$

6

$$60 \overline{)840}$$

7

$$88 \overline{)4,488}$$

8

$$12 \overline{)7,872}$$

9

$$42 \overline{)59,010}$$

10

$$15 \overline{)10,125}$$

11

$$62 \overline{)21,452}$$

12

$$20 \overline{)93,560}$$



Decimal Addition—Skills Practice

Name: _____

Add decimals through hundredths.

Form B

1 $0.5 + 0.8 =$ _____

2 $0.22 + 0.77 =$ _____

3 $46.12 + 0.31 =$ _____

4 $0.09 + 0.9 =$ _____

5 $500.05 + 300.3 =$ _____

6 $6.2 + 1.8 =$ _____

7 $9.6 + 9.31 =$ _____

8 $2.36 + 3.32 =$ _____

9 $70.02 + 70.28 =$ _____

10
$$\begin{array}{r} 64.23 \\ + 4.86 \\ \hline \end{array}$$

11
$$\begin{array}{r} 2.92 \\ + 0.08 \\ \hline \end{array}$$

12
$$\begin{array}{r} 209.71 \\ + 389.02 \\ \hline \end{array}$$

13
$$\begin{array}{r} 44.33 \\ + 33.44 \\ \hline \end{array}$$

14
$$\begin{array}{r} 250.5 \\ + 550.2 \\ \hline \end{array}$$

15
$$\begin{array}{r} 0.7 \\ + 0.7 \\ \hline \end{array}$$

16
$$\begin{array}{r} 0.75 \\ + 0.65 \\ \hline \end{array}$$

17
$$\begin{array}{r} 8.13 \\ + 4.17 \\ \hline \end{array}$$

18
$$\begin{array}{r} 5.42 \\ + 4.5 \\ \hline \end{array}$$

19
$$\begin{array}{r} 329.99 \\ + 22.22 \\ \hline \end{array}$$

20
$$\begin{array}{r} 2.52 \\ + 1.92 \\ \hline \end{array}$$

21
$$\begin{array}{r} 25.2 \\ + 19.2 \\ \hline \end{array}$$



Decimal Subtraction—Skills Practice

Name: _____

Subtract decimals through hundredths.

Form B

1 $92.92 - 0.11 =$ _____

2 $0.5 - 0.05 =$ _____

3 $400.5 - 200.05 =$ _____

4 $0.8 - 0.2 =$ _____

5 $50.14 - 10.07 =$ _____

6 $3.2 - 3.02 =$ _____

7 $4.46 - 2.26 =$ _____

8 $0.66 - 0.22 =$ _____

9 $1.25 - 0.5 =$ _____

10
$$\begin{array}{r} 1.61 \\ - 0.62 \\ \hline \end{array}$$

11
$$\begin{array}{r} 2.4 \\ - 1.2 \\ \hline \end{array}$$

12
$$\begin{array}{r} 591.91 \\ - 203.03 \\ \hline \end{array}$$

13
$$\begin{array}{r} 6.58 \\ - 5.8 \\ \hline \end{array}$$

14
$$\begin{array}{r} 955.9 \\ - 295.3 \\ \hline \end{array}$$

15
$$\begin{array}{r} 4.72 \\ - 1.72 \\ \hline \end{array}$$

16
$$\begin{array}{r} 77.66 \\ - 66.55 \\ \hline \end{array}$$

17
$$\begin{array}{r} 77.66 \\ - 66.77 \\ \hline \end{array}$$

18
$$\begin{array}{r} 89.1 \\ - 33.6 \\ \hline \end{array}$$

19
$$\begin{array}{r} 8.91 \\ - 3.36 \\ \hline \end{array}$$

20
$$\begin{array}{r} 603.22 \\ - 33.33 \\ \hline \end{array}$$

21
$$\begin{array}{r} 43.48 \\ - 1.74 \\ \hline \end{array}$$



Decimal Multiplication—Skills Practice

Name: _____

Multiply.

Form B

1 $4 \times 0.4 =$ _____

2 $1.1 \times 1.1 =$ _____

3 $0.5 \times 6 =$ _____

4 $0.6 \times 0.2 =$ _____

5 $6 \times 0.02 =$ _____

6 $8.8 \times 0.1 =$ _____

7 $15 \times 0.01 =$ _____

8 $0.9 \times 0.04 =$ _____

9 $0.03 \times 10 =$ _____

10
$$\begin{array}{r} 5.4 \\ \times 0.3 \\ \hline \end{array}$$

11
$$\begin{array}{r} 1.3 \\ \times 5 \\ \hline \end{array}$$

12
$$\begin{array}{r} 8.24 \\ \times 0.5 \\ \hline \end{array}$$

13
$$\begin{array}{r} 4.12 \\ \times 2 \\ \hline \end{array}$$

14
$$\begin{array}{r} 0.72 \\ \times 0.3 \\ \hline \end{array}$$

15
$$\begin{array}{r} 1.25 \\ \times 7.5 \\ \hline \end{array}$$

16
$$\begin{array}{r} 0.11 \\ \times 16 \\ \hline \end{array}$$

17
$$\begin{array}{r} 6.2 \\ \times 5.1 \\ \hline \end{array}$$

18
$$\begin{array}{r} 2.22 \\ \times 4.4 \\ \hline \end{array}$$

19
$$\begin{array}{r} 22.2 \\ \times 0.44 \\ \hline \end{array}$$

20
$$\begin{array}{r} 0.5 \\ \times 25 \\ \hline \end{array}$$

21
$$\begin{array}{r} 11.1 \\ \times 0.08 \\ \hline \end{array}$$



Decimal Division—Skills Practice

Name: _____

Divide decimals through hundredths.

Form B

1 $2.4 \div 6 =$ _____

2 $13 \div 0.13 =$ _____

3 $3.5 \div 0.7 =$ _____

4 $0.2 \div 0.1 =$ _____

5 $8 \div 0.4 =$ _____

6 $1.05 \div 0.05 =$ _____

7 $1.44 \div 12 =$ _____

8 $1.44 \div 0.12 =$ _____

9 $0.6 \div 2 =$ _____

10 $1.12 \div 0.8 =$ _____

11 $4.2 \div 0.7 =$ _____

12 $45 \div 0.5 =$ _____

13 $36 \div 0.09 =$ _____

14 $1.8 \div 0.6 =$ _____

15 $1.8 \div 0.06 =$ _____

16 $0.21 \div 3 =$ _____

17 $2.22 \div 0.2 =$ _____

18 $24 \div 1.2 =$ _____

19 $1.25 \div 5 =$ _____

20 $1.25 \div 0.05 =$ _____

21 $0.64 \div 0.8 =$ _____

22 $0.9 \div 9 =$ _____

23 $3.3 \div 11 =$ _____

24 $0.81 \div 9 =$ _____

Add fractions or mixed numbers.

Form B

1 $1\frac{1}{3} + \frac{1}{6} =$ _____

2 $\frac{3}{5} + 3\frac{1}{2} =$ _____

3 $\frac{1}{2} + \frac{5}{12} =$ _____

4 $2\frac{9}{10} + 2\frac{1}{4} =$ _____

5 $1\frac{3}{8} + 1\frac{1}{6} =$ _____

6 $\frac{2}{3} + \frac{1}{8} =$ _____

7 $3\frac{7}{10} + \frac{4}{5} =$ _____

8 $\frac{3}{4} + 2\frac{1}{2} =$ _____

9 $4\frac{1}{4} + 3\frac{1}{3} =$ _____

10 $\frac{3}{5} + 1\frac{1}{4} =$ _____

11
$$\begin{array}{r} \frac{4}{5} \\ + \frac{1}{3} \\ \hline \end{array}$$

12
$$\begin{array}{r} 5\frac{5}{8} \\ + 2\frac{3}{4} \\ \hline \end{array}$$

13
$$\begin{array}{r} 3\frac{1}{2} \\ + \frac{3}{10} \\ \hline \end{array}$$



Subtract fractions or mixed numbers.

Form B

1 $4\frac{11}{12} - \frac{5}{6} =$ _____

2 $\frac{5}{6} - \frac{3}{4} =$ _____

3 $5\frac{1}{8} - 4 =$ _____

4 $5\frac{1}{5} - 2\frac{7}{10} =$ _____

5 $3\frac{2}{3} - \frac{1}{2} =$ _____

6 $2\frac{5}{12} - 2\frac{1}{4} =$ _____

7 $2 - \frac{3}{5} =$ _____

8 $\frac{3}{4} - \frac{2}{3} =$ _____

9 $4 - 2\frac{5}{12} =$ _____

10 $4\frac{1}{6} - 2\frac{5}{8} =$ _____

11
$$\begin{array}{r} 4 \\ - 2\frac{5}{12} \\ \hline \end{array}$$

12
$$\begin{array}{r} 2\frac{3}{4} \\ - \frac{1}{12} \\ \hline \end{array}$$

13
$$\begin{array}{r} 8\frac{3}{10} \\ - 3\frac{1}{4} \\ \hline \end{array}$$

Fraction Multiplication—Skills Practice

Name: _____

Multiply fractions and whole numbers.

Form B

1 $\frac{3}{8} \times 3 =$ _____

2 $\frac{2}{3} \times 6 =$ _____

3 $9 \times \frac{1}{2} =$ _____

4 $\frac{2}{5} \times 5 =$ _____

5 $\frac{3}{10} \times 3 =$ _____

6 $2 \times \frac{1}{5} =$ _____

7 $2 \times \frac{5}{8} =$ _____

8 $\frac{3}{4} \times 3 =$ _____

9 $4 \times \frac{2}{3} =$ _____

10 $\frac{3}{5} \times 8 =$ _____

11 $4 \times \frac{1}{6} =$ _____

12 $\frac{4}{5} \times 5 =$ _____

13 $\frac{7}{8} \times 2 =$ _____

14 $6 \times \frac{1}{3} =$ _____

15 $\frac{1}{20} \times 5 =$ _____

16 $6 \times \frac{1}{6} =$ _____

17 $\frac{5}{12} \times 3 =$ _____

18 $8 \times \frac{3}{4} =$ _____



Multiply fractions by fractions.

Form B

1 $\frac{2}{5} \times \frac{1}{5} =$ _____

2 $\frac{1}{4} \times \frac{1}{2} =$ _____

3 $\frac{3}{5} \times \frac{3}{8} =$ _____

4 $\frac{5}{8} \times \frac{1}{2} =$ _____

5 $\frac{2}{3} \times \frac{2}{8} =$ _____

6 $\frac{3}{4} \times \frac{4}{5} =$ _____

7 $\frac{3}{10} \times \frac{3}{10} =$ _____

8 $\frac{5}{8} \times \frac{5}{8} =$ _____

9 $\frac{9}{12} \times \frac{1}{2} =$ _____

10 $\frac{1}{4} \times \frac{1}{2} =$ _____

11 $\frac{4}{5} \times \frac{5}{4} =$ _____

12 $\frac{2}{5} \times \frac{2}{3} =$ _____

13 $\frac{3}{10} \times \frac{7}{10} =$ _____

14 $\frac{5}{6} \times \frac{10}{8} =$ _____

15 $\frac{1}{6} \times \frac{6}{1} =$ _____

16 $\frac{7}{8} \times \frac{5}{6} =$ _____

17 $\frac{1}{12} \times \frac{2}{3} =$ _____

18 $\frac{3}{4} \times \frac{5}{8} =$ _____



Divide a fraction by a whole number and divide a whole number by a fraction.

Form B

1 $5 \div \frac{1}{3} =$ _____

2 $3 \div \frac{1}{5} =$ _____

3 $2 \div \frac{1}{2} =$ _____

4 $\frac{1}{2} \div 2 =$ _____

5 $\frac{1}{4} \div 2 =$ _____

6 $\frac{1}{2} \div 4 =$ _____

7 $2 \div \frac{1}{5} =$ _____

8 $5 \div \frac{1}{2} =$ _____

9 $4 \div \frac{1}{6} =$ _____

10 $\frac{1}{5} \div 5 =$ _____

11 $\frac{1}{6} \div 4 =$ _____

12 $\frac{1}{4} \div 6 =$ _____

13 $6 \div \frac{1}{3} =$ _____

14 $10 \div \frac{1}{2} =$ _____

15 $2 \div \frac{1}{10} =$ _____


16 $\frac{1}{2} \div 6 =$ _____

17 $\frac{1}{6} \div 2 =$ _____

18 $\frac{1}{8} \div 5 =$ _____



Patterns of Zeros

 **Check Understanding**
 Predict the number of zeros in 9×10^2 .
 Explain how to divide 0.5 by 10^3 .

What You Need

- 10 game pieces of one color
- 10 game pieces of another color
- number cards (1–9)
- Game Board

What You Do

1. Take turns. Choose a number card. Read the clue next to that number. Return the card to the pile.
2. Find an expression on the **Game Board** with a product or quotient that matches the clue.
3. Write the product or quotient. Your partner checks your work.
4. If you are correct, place a game piece on the expression and score 1 point. If you are incorrect, your turn ends.
5. If no expression matches your clue, say “No match.” If your partner decides you are correct, choose another card. If you are incorrect, your turn ends.
6. The first person to score 6 points wins.

Number Card	Clue
1	2 zeros in the product
2	3 zeros in the product
3	2 zeros in the quotient
4	3 zeros in the quotient
5	decimal point shifts 2 places to the right
6	decimal point shifts 2 places to the left
7	decimal point shifts 3 places to the right
8	decimal point shifts 3 places to the left
9	no zeros in the product or quotient

Go Further!

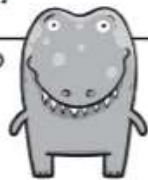
Choose an expression on the **Game Board**. Write a power of ten expression that is 10 times more or 10 times less than its value. Show your expression, and have your partner guess which expression on the **Game Board** you chose.



Patterns of Zeros

0.03×10^2	$2 \div 10 \times 10 \times 10$	$0.005 \times 10 \times 10$
$4 \div 100$	$80,000 \div 100$	7×10^3
50×10^1	$40,000,000 \div 10^4$	60×10^2
$0.9 \div 10^2$	$7,000 \div 100$	$6 \times 10 \times 10$
$0.07 \div 10 \times 10$	0.008×10^3	$3,000,000 \div 10^3$
$0.3 \times 10 \times 10 \times 10$	$20 \div 10^1$	$9,000 \div 10 \times 10 \times 10$

When I multiply or divide a decimal number by a power of ten, I decide how far to move the decimal point to the right or the left.



Add and Subtract Fractions

What You Need

- 10 game markers in one color
- 10 game markers in a different color
- Game Board



Check Understanding

Find the sum or difference. Show your work.

$$\frac{1}{12} + \frac{3}{4} \quad \frac{4}{5} - \frac{1}{2}$$

What You Do

1. Take turns. Roll the number cube.
2. Find the denominator that matches your toss in the table.
3. Choose an addition or subtraction expression on the **Game Board** that can be solved using that number as a denominator. If none of the remaining expressions can be solved using that denominator, your turn ends.
4. Tell your partner how you would solve the problem using that denominator. If your partner agrees, rewrite the expression on the **Game Board**. Then find the sum or difference.
5. Place a game marker on the space on the **Game Board**.
6. Continue until all of the expressions have been solved.
7. The partner with more game markers on the **Game Board** wins the game.

Toss	Denominator
1	4
2	6
3	8
4	10
5	12
6	20

Go Further!

Choose three subtraction expressions on the **Game Board**. Change the operation from subtraction to addition and find the sum using a different denominator than was used in the game. Exchange papers with your partner to check.



Add and Subtract Fractions

$\frac{1}{6} + \frac{3}{4}$ _____	$\frac{3}{8} - \frac{1}{4}$ _____	$\frac{3}{5} + \frac{3}{10}$ _____	$\frac{5}{12} + \frac{1}{4}$ _____
$\frac{2}{3} - \frac{1}{6}$ _____	$\frac{7}{10} - \frac{3}{5}$ _____	$\frac{1}{2} + \frac{3}{4}$ _____	$\frac{5}{6} - \frac{1}{2}$ _____
$\frac{7}{8} - \frac{3}{4}$ _____	$\frac{1}{2} + \frac{2}{5}$ _____	$\frac{2}{3} - \frac{3}{6}$ _____	$\frac{3}{4} - \frac{7}{10}$ _____
$\frac{3}{4} - \frac{1}{3}$ _____	$\frac{1}{2} + \frac{1}{4}$ _____	$\frac{3}{4} - \frac{6}{20}$ _____	$\frac{4}{5} - \frac{1}{4}$ _____

Sometimes I need to rename both fractions using the new denominator: $\frac{1}{4} + \frac{1}{3} = \frac{3}{12} + \frac{4}{12}$.



Find the Prism

What You Need

- unit cubes
- 6 game markers in one color
- 6 game markers in a different color
- Game Board

Check Understanding

A rectangular prism is measured in inches. The expression $(4 \times 4) \times 5$ represents its volume. Use unit cubes to build the prism. Tell its volume and explain how you got your answer.

What You Do

1. Takes turns. Choose a letter.
2. Read the expression next to that letter in the table. Evaluate the expression.
3. Find a prism on the **Game Board** with the same volume as your answer to number 2.
4. Your partner builds the prism with unit cubes to check your work.
5. If you are correct, cover that prism with a game marker. If you are incorrect, your partner covers that prism with a game marker.
6. Each partner takes four turns. The player with the greater number of game markers wins.

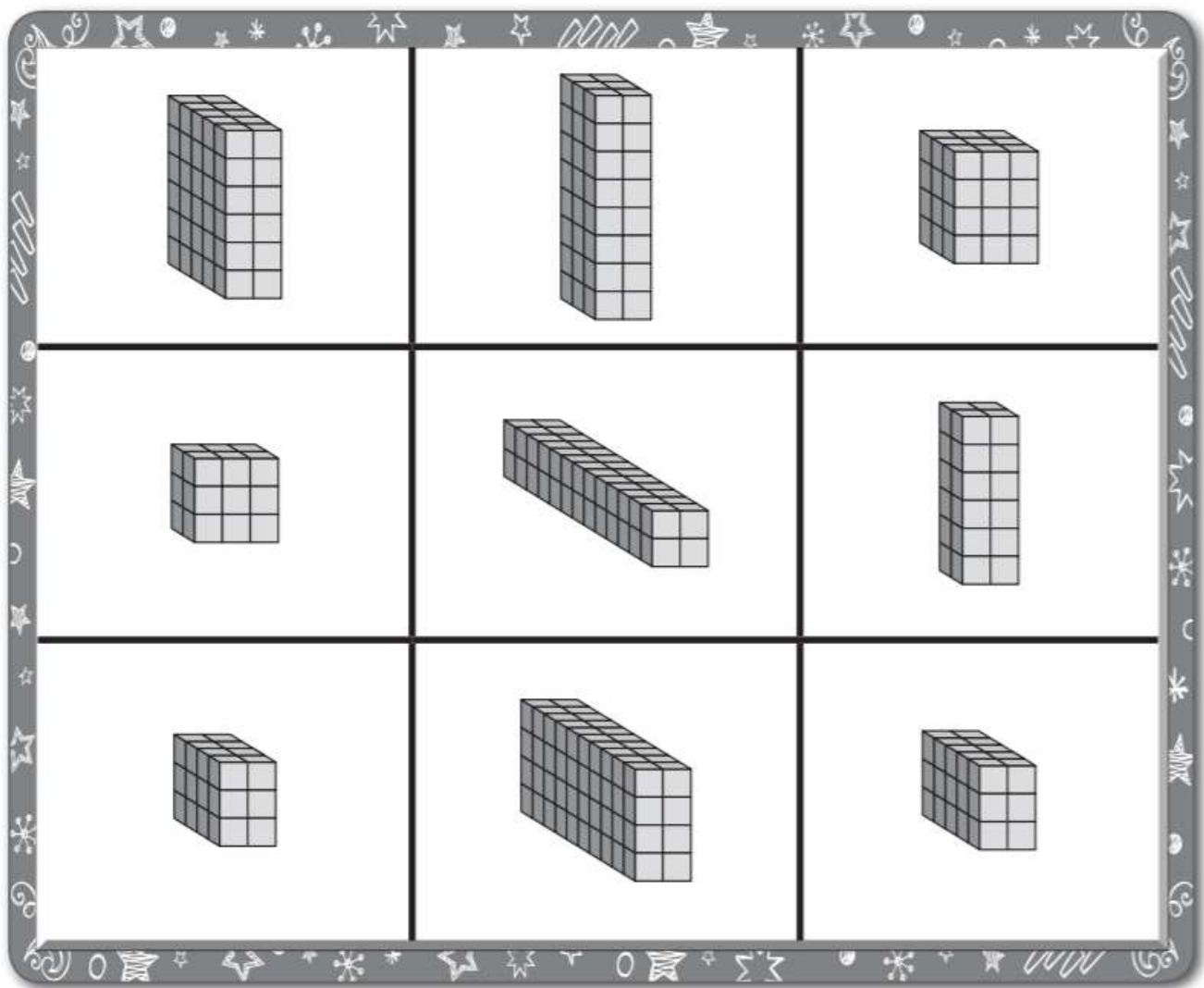
A	20×4
B	$10 + 10 + 10$
C	$(2 \times 3) \times 8$
D	$6 + 6 + 6$
E	$(2 \times 2) \times 6$
F	10×6
G	$12 + 12 + 12$
H	$(2 \times 13) \times 2$
I	8×3

Go Further!

Find the prism on the **Game Board** that is not covered with a game marker. Use unit cubes to build the prism. If each unit cube represents 1 cubic centimeter, what is the volume of the prism? Write two different expressions that show how to find that volume.

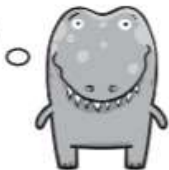


Find the Prism



Think! Does the expression represent:

- adding the number of cubes in each layer?
- multiplying the number of rows by cubes per row by number of layers?
- multiplying the number of cubes per layer by the number of layers?



Equivalent Multiplication Expressions

What You Need

- Recording Sheet

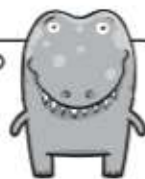
Check Understanding

Write an expression that is equivalent to 312×25 . Find the value of both expressions. Show your work.

What You Do

1. Take turns. Pick any table on the **Recording Sheet**. Read the multiplication expression in the header row of the table.
2. Pick an expression in the table. Decide if the expression is equivalent to the multiplication expression in the header row. Use any method to determine if the expressions are equivalent.
3. Explain your reasoning. If your partner agrees, check the correct answer—*Yes* or *No*. If you are incorrect, your turn ends.
4. Continue until all the expressions are marked *Yes* or *No*.

I can decide if expressions are equivalent by drawing area models, applying the distributive property, multiplying partial products, or using mental math and reasoning.



Go Further!

Find the product of each multiplication expression in the header row of each table on the **Recording Sheet** using the standard multiplication algorithm. Exchange papers with your partner to check.



Equivalent Multiplication Expressions

Equivalent to 723×28	Yes	No
$(723 \times 20) + (723 \times 8)$		
$723 \times (2 \times 8)$		
$(700 \times 28) + (20 \times 28) + (3 \times 28)$		
$(700 \times 20) + (200 \times 20) + (20 \times 8)$		

Equivalent to 617×49	Yes	No
$(617 \times 40) + (10 \times 40) + (7 \times 49)$		
$(600 \times 10 \times 7) + (40 \times 9)$		
$(600 \times 40) + (600 \times 9) + (10 \times 40) + (10 \times 9) + (7 \times 40) + (7 \times 9)$		
$(600 + 10 + 7) + (40 \times 9)$		

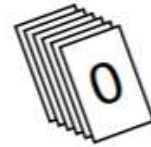
Equivalent to 105×65	Yes	No
$(325) + (6,500)$		
$(105 \times 60) + (105 \times 5)$		
$(60 \times 100) + (60 \times 5) + (5 \times 100) + (5 \times 5)$		
$(100 \times 60) + (100 \times 5) + (5 + 60)$		

Unit 1 Game

Name: _____

Decimal Race to 100

What you need: Recording Sheet,
2 sets of Digit Cards (0–9)



Directions

- The goal of the game is to add 5 numbers to get as close as you can to 100, without going over.
- Take turns making decimal numbers. On your first turn, choose three digit cards. Write them in any order and put the decimal point before or after any digit. Write your decimal on the Recording Sheet and shuffle the cards back into the pile.
- On your second turn, pick three more cards to make another decimal in the same way. Write the second decimal on the recording sheet. Line up the decimal points and add your two numbers.
- Take turns making decimal numbers and adding the number to your sum.
- After 5 rounds, subtract your sum from 100. The player who is closest to 100 without going over is the winner.

7 6 2

Decimal Race to 100 Recording Sheet

Name: _____

Paul Player A Name		Lynn Player B Name	
1.	76.2	1.	16.2
2. +	9.84	2. +	25.2
	86.04		41.4
3. +		3. +	

With these digits, I could make numbers from 762 (way too big!) all the way down to 0.267 (which won't get me very close to 100!).



Name: _____



Decimal Race to 100 Recording Sheet

Player A Name

1. _____

2. + _____

3. + _____

4. + _____

5. + _____

100.00

- _____

Final Score Player A

Player B Name

1. _____

2. + _____

3. + _____

4. + _____

5. + _____

100.00

- _____

Final Score Player B



Digit Cards



0	1	2	3	4
5	6	7	8	9
0	1	2	3	4
5	6	7	8	9

Unit 2 Game

Name: _____

Fraction Sums and Differences

What you need: Recording Sheet,
1 number cube (1–6)



Directions

- Both players roll the number cube four times and record the four numbers at the top of the Recording Sheet. Players use these same numbers for Rounds 1 through 4.
- In each round the players use these four digits to create two fractions.
- In Round 1, the player with the *greatest sum* wins the round. Use the digits to make two fractions, and add them. Record the addition and sum on the Recording Sheet.
- In Round 2, the player with the *greatest difference* wins the round. Make two fractions, and subtract one from the other. Record the difference.
- In Round 3, the player who makes the *least sum* wins.
- In Round 4, the player who makes the *least difference* wins.
- In Round 5, the players decide together whether to add or subtract and whether to try for the greatest or least result. After deciding, players both roll 4 new numbers to use in the final round.

Fraction Sums and Differences Recording Sheet

Name: _____

Pam
Player A Name
Digits: 2 4 6 1

Greatest Sum
1. $\frac{2}{4} + \frac{6}{1} = 6\frac{2}{4}$

Greatest Difference
2. $\frac{6}{1} - \frac{2}{4} = \square - \square = \square$

Scott
Player B Name
Digits: 5 3 1 4

Greatest Sum
1. $\frac{5}{1} + \frac{4}{3} = 6\frac{1}{3}$

Greatest Difference
2. $\frac{5}{1} - \frac{4}{3} = \square - \square = \square$

The greater the fractions, the greater the sum. But what does it mean to have the greatest difference?



Fraction Sums and Differences Recording Sheet



Player A Name

Digits:

Greatest Sum

1. $\frac{\square}{\square} + \frac{\square}{\square} = \square$

Greatest Difference

2. $\frac{\square}{\square} - \frac{\square}{\square} = \square$

Least Sum

3. $\frac{\square}{\square} + \frac{\square}{\square} = \square$

Least Difference

4. $\frac{\square}{\square} - \frac{\square}{\square} = \square$

Players' Choice

5. $\frac{\square}{\square} \square \frac{\square}{\square} = \square$

Player B Name

Digits:

Greatest Sum

1. $\frac{\square}{\square} + \frac{\square}{\square} = \square$

Greatest Difference

2. $\frac{\square}{\square} - \frac{\square}{\square} = \square$

Least Sum

3. $\frac{\square}{\square} + \frac{\square}{\square} = \square$

Least Difference

4. $\frac{\square}{\square} - \frac{\square}{\square} = \square$

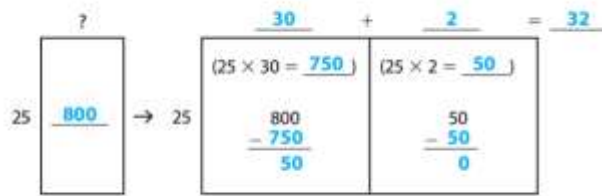
Players' Choice

5. $\frac{\square}{\square} \square \frac{\square}{\square} = \square$



Unit 1 Assessment Answer Key

$800 \div 25$ is the same as $25 \times ? = 800$



- $800 \div 25 = 32$
- C, D
- a. false; b. false; c. true; d. true
- B
- Pt A: 5,520 minutes Pt B: 92 hours (check student work)
- Pt A: Yes, Matt's model is correct. Check student's explanation to see if it's reasonable and makes sense. Pt B: Matt puts 9.8 ounces of the combined mix into each bowl.
- a. >; b. =; c. >; d. <; e. <
- The customer pays \$17.12 for the fabric.
- a. yes; b. no; c. yes; d. yes
- I agree with Amber – check student work to see if reasonable and makes sense.
- Pt A:



- Pt B: a. tenth; b. 4.6 than 4.5; c. faster
- 31.95 centimeters
 - a. yes; b. no; c. yes; d. no
 - D

Unit 2 Assessment Answer Key

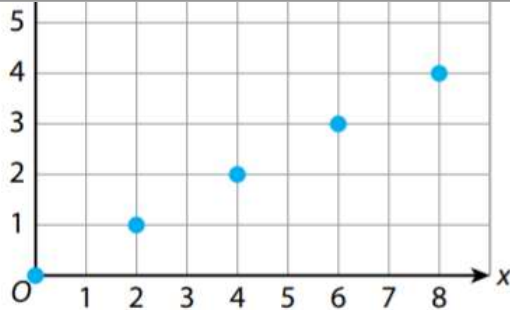
- $1 \frac{2}{12}$ or $1 \frac{1}{6}$
- C
- check model student drew; $6; 2 \times 3 = 6$
- a. false; b. true; c. false; d. true
- $2 \frac{1}{2}$ quarts
- B, D
- Pt A: the part between 0 and $\frac{8}{3}$ is shaded. Pt B: possible explanation- the product, $\frac{8}{3}$, is the same as the factor $\frac{8}{3}$. Pt C: $\frac{4}{4}$ can be written as 1. Check to see if explanation makes sense and seems reasonable.
- $\frac{3}{12}$ or $\frac{1}{4}$ hour
- B
- $\frac{10}{9}$ square yards
- Pt A: check to see if model drawn shows a point that is equal to $\frac{1}{8}$ Pt B: $\frac{1}{8}; \frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$
- $\frac{1}{16}$ – check model to see if it shows 4 rows of 4 with top row shaded and then $\frac{1}{4}$ shaded darker
- Pt A: Abby is correct because $\frac{3}{4} < 1$. When you multiply $\frac{2}{5}$ by a factor that is less than 1, the result will be less than $\frac{2}{5}$. Pt B: Abby is not. She doesn't recognize that the factor $\frac{4}{3} > 1$. When you multiply $\frac{2}{5}$ by a factor that is greater than 1, the result will be greater than $\frac{2}{5}$.
- a. no; b. yes; c. yes; d. no

Unit 3 Assessment Answer Key

1. $(3 \times 6) - 2$

2. Pt A:

4	2	(4, 2)
6	3	(6, 3)
8	4	(8, 4)



Pt B:

3. a. false; b. false; c. true; d. false

4. Jacob's expression is not correct. His expression represents "the sum of 15 times 2 and 9." He should have written $15 \times (2 + 9)$.

5. B

6. Pt A: Plastic cups: \$0, \$2, \$4, \$6, \$8, \$10. Mugs: \$0, \$8, \$16, \$24, \$32, \$40.

Pt B: Each term in the 2nd number pattern is 4 times the value of the corresponding term in the 1st number pattern.

7. 160 minutes

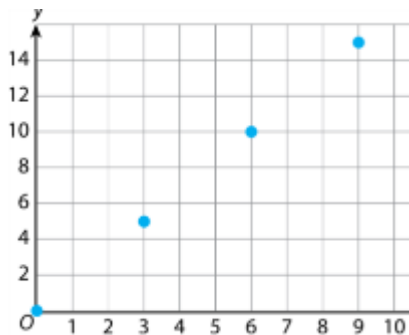
8. B, C, E

9. D

10. Pt A:

3	5	(3, 5)
6	10	(6, 10)
9	15	(9, 15)

Pt B:



Pt C: possible explanation- each term in the 2nd pattern is $1 \frac{2}{3}$ times the corresponding term in the 1st pattern.

Unit 4 Assessment Answer Key

1. B, E

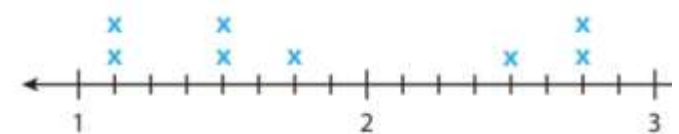
2. 150 yards of lace

3. Pt A: 12 cubic units (4 layers of cubes and 3 unit cubes in each layer; $4 \times 3 = 12$)

Pt B: Student descriptions should include a total of 12 unit cubes in any one of the following configurations: 1 layer of 12 unit cubes, 12 layers of 1 unit cube, 2 layers of 6 unit cubes, 6 layers of 2 unit cubes, 3 layers of 4 unit cubes.

4. 60 cubic feet

5. Pt A:



Pt B: Alicia is correct. Check explanation – add amounts, rewrite with common denominator and there is a total of 15 cups of water. There are 8 beakers. If each beaker contains $1 \frac{7}{8}$ cups, then $1 \frac{7}{8} \times 8 = 15/8 \times 8 = 15$.

6. D

7. 20 cubic feet

8. 36 cubic centimeters. Check explanation – 9 cubes in one layer and there are 4 layers.

9. a. no; b. yes; c. yes; d. no

10. Pt A: 18 quarts Pt B: 36 pints

11. D

12. 96 cubic inches using either method

Activity 5.10 Answer Key

★★★ Check Understanding

2, Sample explanation: When I multiply a whole number by 10^2 , the exponent 2 tells me to add 2 zeros to the end of the number, so 9 becomes 900.

To divide 0.5 by 10^3 , move the decimal point 3 places to the left. Move to the left because division decreases the value. Move three places because the exponent is 3.

Game Board

Card 1: 50×10^1 ; $6 \times 10 \times 10$;
 $0.3 \times 10 \times 10 \times 10$

Card 2: 7×10^3 ; 60×10^2

Card 3: $0.9 \div 10^2$; $2 \div 10 \times 10 \times 10$;
 $80,000 \div 100$

Card 4: $3,000,000 \div 10^3$; $40,000,000 \div 10^4$;
 $0.07 \div 10 \times 10$

Card 5: 0.03×10^2 ; $0.005 \times 10 \times 10$;
 $6 \times 10 \times 10$; 60×10^2

Card 6: $0.9 \div 10^2$; $0.07 \div 10 \times 10$;
 $4 \div 100$; $80,000 \div 100$; $7,000 \div 100$

Card 7: $0.3 \times 10 \times 10 \times 10$; 7×10^3 ;
 0.008×10^3

Card 8: $2 \div 10 \times 10 \times 10$;
 $9,000 \div 10 \times 10 \times 10$

Card 9: $20 \div 10^1$; $0.005 \times 10 \times 10$;
 $9,000 \div 10 \times 10 \times 10$; 0.008×10^3 ;
 0.03×10^2

Activity 5.21 Answer Key

★★ Check Understanding

$$\frac{10}{12} = \frac{5}{6}, \frac{3}{10}$$

Recording Sheet

Some expressions can be solved with other denominators in the table. Sample answers are given.

$$4: \frac{1}{2} + \frac{3}{4} = \frac{5}{4} \text{ or } 1\frac{1}{4}, \frac{1}{2} + \frac{1}{4} = \frac{3}{4}$$

$$6: \frac{2}{3} - \frac{1}{6} = \frac{3}{6} \text{ or } \frac{1}{2}, \frac{5}{6} - \frac{1}{2} = \frac{2}{6} \text{ or } \frac{1}{3}, \frac{2}{3} - \frac{3}{6} = \frac{1}{6}$$

$$8: \frac{3}{8} - \frac{1}{4} = \frac{1}{8}, \frac{7}{8} - \frac{3}{4} = \frac{1}{8}$$

$$10: \frac{3}{5} + \frac{3}{10} = \frac{9}{10}, \frac{7}{10} - \frac{3}{5} = \frac{1}{10}, \frac{1}{2} + \frac{2}{5} = \frac{9}{10}$$

$$12: \frac{1}{6} + \frac{3}{4} = \frac{11}{12}, \frac{5}{12} + \frac{1}{4} = \frac{8}{12} \text{ or } \frac{2}{3}, \frac{3}{4} - \frac{1}{3} = \frac{5}{12}$$

$$20: \frac{3}{4} - \frac{7}{10} = \frac{1}{20}, \frac{3}{4} - \frac{6}{20} = \frac{9}{20}, \frac{4}{5} - \frac{1}{4} = \frac{11}{20}$$

Activity 5.42 Answer Key

★★ Check Understanding

80 cubic inches; Sketches should show a prism with 5 layers, each made up of 4 rows of 4 cubes; Possible answer: The numbers in parentheses represent multiplying the number of rows and the cubes per row in each layer. The 5 means that there are 5 layers: $(4 \times 4) \times 5 = 16 \times 5 = 80$.

Recording Sheet

The prisms in the rows match these evaluated expressions. Measures are in cubic units:

Row 1: $10 \times 6 = 60$, $(2 \times 3) \times 8 = 48$,
 $12 + 12 + 12 = 36$

Row 2: $6 + 6 + 6 = 18$, $(2 \times 13) \times 2 = 52$,
 $(2 \times 2) \times 6 = 24$

Row 3: $8 \times 3 = 24$, $20 \times 4 = 80$,
 $10 + 10 + 10 = 30$

Activity 5.16 Answer Key

★★ Check Understanding

7,800; Sample answers:
 $(300 \times 20) + (300 \times 5) + (10 \times 20) + (10 \times 5) +$
 $(2 \times 20) + (2 \times 5)$; $(300 \times 25) + (12 \times 25)$;
 $1,560 + 6,240$

Recording Sheet

Table 1: Yes, No, Yes, No

Table 2: No, No, Yes, No

Table 3: Yes, Yes, Yes, No