

# ESTIMATING SUMS & DIFFERENCES

## PART 1

You go to the store with \$20. Using front-end estimation (rounding to the nearest whole dollar), list three combinations of items that you may be able to buy. You can have any number of items, but it must be *about* \$20.

Example: Pizza (\$7) + Dog Food (\$13) = \$20

First Combination:

Second Combination:

Third Combination:

## PART 2

Now, round the price of each item from Part 1 to the nearest TENTH of a dollar. Find the sum of those prices. Would you have gone over the \$20 limit?

Example: Pizza (\$7.20) + Dog Food (\$13.40) = \$20.60 *Yes, I would have gone over the limit.*

First Combination:

Second Combination:

Third Combination:

About how much more do eggs cost than whipped cream?

About how much would it cost to buy a card, tissues, and shampoo?

About how much would it cost to buy two bags of carrots?

About how much more is the pizza than the chicken strips?



# ESTIMATING SUMS & DIFFERENCES AT THE GROCERY STORE

TOP 5 MOST-VISITED GROCERY STORES IN THE UNITED STATES	
GROCERY STORE	NUMBER OF VISITORS
Whole Foods	18,298,298
King Soopers	14,432,235
Costco	9,556,096
Safeway	9,456,022
Wal*Mart	6,873,234

About how many more visitors did King Soopers have than Costco?

About how many visitors did Costco, Safeway, and Wal\*Mart have combined?

Which grocery store has about ten million more visitors than Costco?  
Explain how you know.

Create two questions that can be answered using the table above with estimation or rounding.




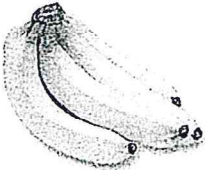















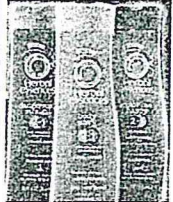


## All Operations (D)

Find each sum, difference, product, or quotient.

$\frac{9}{\div 3}$	$\frac{9}{\times 7}$	$\frac{12}{\div 2}$	$\frac{9}{- 5}$	$\frac{1}{\times 2}$	$\frac{90}{\div 9}$	$\frac{8}{\times 9}$	$\frac{9}{\times 1}$	$\frac{27}{\div 3}$	$\frac{50}{\div 5}$
$\frac{28}{\div 4}$	$\frac{20}{- 12}$	$\frac{14}{- 2}$	$\frac{60}{\div 6}$	$\frac{1}{\times 4}$	$\frac{6}{+ 8}$	$\frac{12}{+ 7}$	$\frac{10}{- 6}$	$\frac{1}{+ 4}$	$\frac{3}{+ 11}$
$\frac{6}{+ 1}$	$\frac{6}{+ 10}$	$\frac{60}{\div 12}$	$\frac{7}{+ 3}$	$\frac{2}{+ 9}$	$\frac{13}{- 9}$	$\frac{8}{- 1}$	$\frac{21}{\div 7}$	$\frac{5}{\times 10}$	$\frac{1}{\times 3}$
$\frac{28}{\div 4}$	$\frac{8}{+ 3}$	$\frac{4}{- 1}$	$\frac{24}{\div 3}$	$\frac{9}{+ 11}$	$\frac{10}{+ 1}$	$\frac{11}{\times 6}$	$\frac{11}{- 3}$	$\frac{84}{\div 7}$	$\frac{2}{- 1}$
$\frac{10}{- 4}$	$\frac{2}{+ 1}$	$\frac{18}{- 8}$	$\frac{8}{- 3}$	$\frac{12}{+ 12}$	$\frac{7}{+ 8}$	$\frac{9}{- 3}$	$\frac{13}{- 9}$	$\frac{12}{\times 12}$	$\frac{10}{\times 8}$
$\frac{81}{\div 9}$	$\frac{22}{- 11}$	$\frac{14}{\div 7}$	$\frac{11}{- 6}$	$\frac{33}{\div 11}$	$\frac{20}{\div 10}$	$\frac{10}{\div 2}$	$\frac{8}{\times 10}$	$\frac{1}{\times 8}$	$\frac{48}{\div 8}$
$\frac{23}{- 12}$	$\frac{70}{\div 7}$	$\frac{7}{\times 9}$	$\frac{7}{\times 2}$	$\frac{12}{\times 6}$	$\frac{12}{- 10}$	$\frac{3}{\times 3}$	$\frac{16}{- 10}$	$\frac{7}{- 2}$	$\frac{2}{+ 9}$
$\frac{10}{\times 2}$	$\frac{5}{\times 11}$	$\frac{9}{\times 4}$	$\frac{7}{\times 6}$	$\frac{5}{+ 3}$	$\frac{15}{- 3}$	$\frac{21}{- 12}$	$\frac{4}{\times 6}$	$\frac{12}{\div 6}$	$\frac{12}{\times 10}$
$\frac{54}{\div 6}$	$\frac{7}{\times 10}$	$\frac{8}{\times 4}$	$\frac{27}{\div 9}$	$\frac{7}{+ 7}$	$\frac{7}{\div 7}$	$\frac{13}{- 3}$	$\frac{9}{+ 11}$	$\frac{11}{+ 1}$	$\frac{5}{+ 4}$
$\frac{12}{- 9}$	$\frac{8}{+ 3}$	$\frac{14}{- 10}$	$\frac{10}{\times 1}$	$\frac{16}{- 4}$	$\frac{11}{+ 12}$	$\frac{9}{\div 9}$	$\frac{2}{\times 5}$	$\frac{10}{\times 2}$	$\frac{3}{\times 6}$



# THE MATH MARKET

<p><b>CARROTS</b></p>  <p><b>\$1.58</b> SERVES 7</p>	<p><b>BANANAS</b></p>  <p><b>.86</b> SERVES 6</p>	<p><b>STRAWBERRIES</b></p>  <p><b>\$2.48</b> SERVES 5</p>	<p><b>GRAPES</b></p>  <p><b>\$3.67</b> SERVES 8</p>
<p><b>EGGS</b></p>  <p><b>\$2.54</b> SERVES 12</p>	<p><b>CHICKEN STRIPS</b></p>  <p><b>\$5.74</b> SERVES 8</p>	<p><b>PIZZA</b></p>  <p><b>\$7.24</b> SERVES 5</p>	<p><b>CEREAL</b></p>  <p><b>\$2.25</b> SERVES 16</p>
<p><b>BROCCOLI</b></p>  <p><b>\$1.94</b> SERVES 2</p>	<p><b>CRACKERS</b></p>  <p><b>\$2.04</b> SERVES 18</p>	<p><b>MAC &amp; CHEESE</b></p>  <p><b>\$2.48</b> SERVES 3</p>	<p><b>WHIPPED CREAM</b></p>  <p><b>\$1.09</b> SERVES 8</p>
<p><b>BISCUITS</b></p>  <p><b>\$2.94</b> SERVES 8</p>	<p><b>CANDY</b></p>  <p><b>\$1.66</b> SERVES 1</p>	<p><b>DONUTS</b></p>  <p><b>.59</b> SERVES 1</p>	<p><b>BREAD</b></p>  <p><b>\$3.46</b> SERVES 18</p>
<p><b>TISSUES</b></p>  <p><b>\$2.56</b></p>	<p><b>SHAMPOO</b></p>  <p><b>\$3.55</b></p>	<p><b>CARD</b></p>  <p><b>\$1.49</b></p>	<p><b>DOG FOOD</b></p>  <p><b>\$13.43</b></p>

# SALE, SALE, SALE!

Hot off the press! There is a sale at your local grocery store...but the managers are demanding YOU do the math! There are two options for this stupendous sale: You can round the prices to the nearest whole dollar OR you round them to the nearest tenth of a dollar. However, you must determine what the better deal is!

Use the prices from the Market Math Ad to determine the sale prices for each item if it was on sale by rounding to the whole dollar AND rounding to the nearest tenth of a dollar. Then answer the questions on the next page.

Item	Whole Dollar	Tenth of a Dollar
Carrots		
Bananas		
Strawberries		
Grapes		
Eggs		
Chicken Strips		
Pizza		
Cereal		
Broccoli		
Crackers		
Mac & Cheese		
Whipped Cream		
Biscuits		
Candy		
Donuts		
Bread		
Tissues		
Shampoo		
Card		
Dog Food		

# SALE, SALE, SALE!

## Rounding Decimals Data Reflection

1. Which do you think will be the better buy, rounding to the nearest whole dollar or rounding to the nearest tenth of a dollar. Why?
2. How much will all of the groceries cost in total when you round them to the nearest whole dollar?
3. How much will all of the groceries cost when you round them to the nearest tenth of a dollar?
4. Which is the better deal? Was your prediction correct?
5. How much money do you save by rounding to the answer in number 4 than the other option?
6. What if the store manager gave you the option to round the prices to the nearest hundredth or thousandth of a dollar? Would you be interested in that sale? Why or why not?
7. Even if there weren't a sale like this at a real store, how could rounding to the nearest dollar or tenth of a dollar help you?

### Extension

*Add up the total price of the original items altogether. What is the total original cost of all of the items? How much money do you save by taking advantage of this sale?*



Day 6

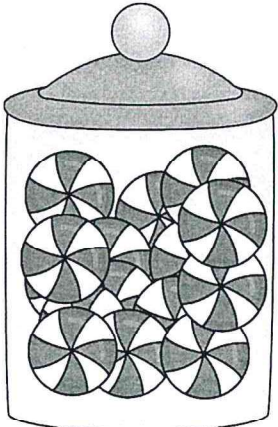


# The

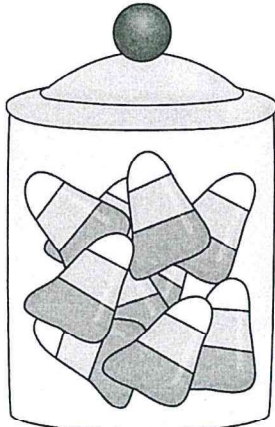
# Candy Corner



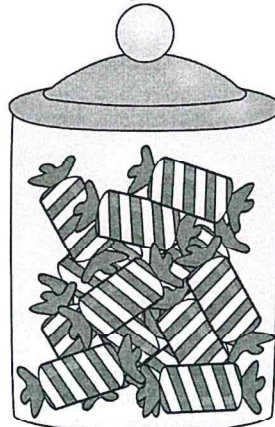
## \*Bulk Candy\*



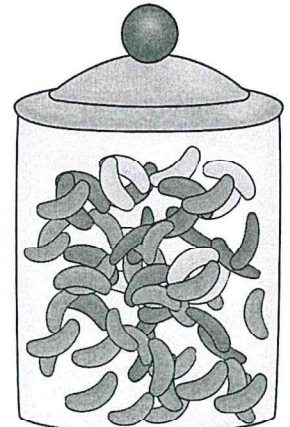
Peppermints  
\$2.37/pound



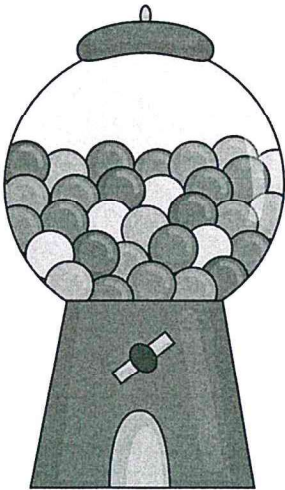
Candy Corn  
\$5.78/pound



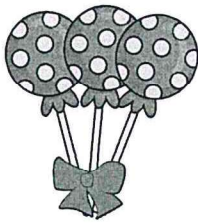
Tootsie Rolls  
\$7.61/pound



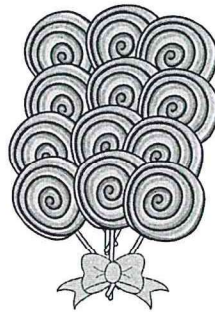
Jelly Beans  
\$8.96/pound



Gumballs  
.75/spin



Grape Pops  
\$1.25/three



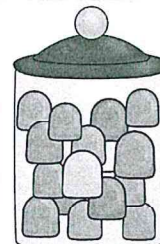
Swirly Pops  
\$19.39/dozen



Strawberry Pops  
\$4.54/six



GRAB BAG!  
\$6.52/pound



Gumdrops  
\$3.23/scoop





# Shopping at The Candy Corner

## MULTIPLYING DECIMALS

1. Select three pounds of any three different candies (9 pounds total). How much would it cost to buy 9 pounds of this candy for 3 of your friends AND yourself?

3 Candies/Price Per Pound

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Price for 9 pounds = \_\_\_\_\_

Price for 36 pounds = \_\_\_\_\_

Work Space

2. Aubrey was buying candy for goodie bags for her birthday party. She bought 6 pounds of Jelly Beans. How much did she spend on Jelly Beans?

Work Space

3. Abigail bought 4 pounds of peppermints and Sophia bought 3 pounds of Grab Bag candy. Who spent less money? By how much?

Work Space

4. Fred bought 12 Strawberry Pops, 4 spins of the gumball machine, and 3 scoops of Gumdrops. How much did he spend?

Work Space

# Shopping at The Candy Corner

## DIVIDING DECIMALS

1. How much does each swirly pop cost?      2. How much does each grape pop cost?

Work Space

Work Space

3. If there are 12 gumdrops per scoop, how much is each gumdrop?

4. If 5 gumballs are released with each spin, how much is each gumball?

Work Space

Work Space

5. David and Mary split the cost of a pound each of Jelly Beans, Gumdrops, and Peppermints. How much did they each pay?

Work Space

6. Joe and Kim split a pound of Grab Bag candy and a pound of Gumdrops. How much did they each pay?

Work Space

## All Operations (F)

Find each sum, difference, product, or quotient.

$$\begin{array}{r} 3 \\ \div 1 \end{array} \quad \begin{array}{r} 2 \\ + 4 \end{array} \quad \begin{array}{r} 20 \\ \div 5 \end{array} \quad \begin{array}{r} 8 \\ - 3 \end{array} \quad \begin{array}{r} 4 \\ \times 5 \end{array} \quad \begin{array}{r} 1 \\ + 5 \end{array} \quad \begin{array}{r} 5 \\ - 3 \end{array} \quad \begin{array}{r} 3 \\ + 5 \end{array} \quad \begin{array}{r} 5 \\ \times 3 \end{array} \quad \begin{array}{r} 4 \\ + 4 \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \end{array} \quad \begin{array}{r} 6 \\ - 4 \end{array} \quad \begin{array}{r} 3 \\ - 1 \end{array} \quad \begin{array}{r} 4 \\ + 5 \end{array} \quad \begin{array}{r} 1 \\ + 1 \end{array} \quad \begin{array}{r} 16 \\ \div 4 \end{array} \quad \begin{array}{r} 3 \\ + 5 \end{array} \quad \begin{array}{r} 1 \\ + 5 \end{array} \quad \begin{array}{r} 15 \\ \div 3 \end{array} \quad \begin{array}{r} 3 \\ \times 4 \end{array}$$

$$\begin{array}{r} 5 \\ - 4 \end{array} \quad \begin{array}{r} 3 \\ \times 5 \end{array} \quad \begin{array}{r} 6 \\ - 5 \end{array} \quad \begin{array}{r} 2 \\ \div 1 \end{array} \quad \begin{array}{r} 7 \\ - 5 \end{array} \quad \begin{array}{r} 2 \\ + 2 \end{array} \quad \begin{array}{r} 5 \\ - 4 \end{array} \quad \begin{array}{r} 7 \\ - 5 \end{array} \quad \begin{array}{r} 2 \\ \times 2 \end{array} \quad \begin{array}{r} 6 \\ - 2 \end{array}$$

$$\begin{array}{r} 2 \\ + 5 \end{array} \quad \begin{array}{r} 8 \\ - 5 \end{array} \quad \begin{array}{r} 8 \\ \div 2 \end{array} \quad \begin{array}{r} 4 \\ \times 3 \end{array} \quad \begin{array}{r} 1 \\ \times 4 \end{array} \quad \begin{array}{r} 20 \\ \div 4 \end{array} \quad \begin{array}{r} 4 \\ \times 4 \end{array} \quad \begin{array}{r} 8 \\ - 5 \end{array} \quad \begin{array}{r} 5 \\ + 3 \end{array} \quad \begin{array}{r} 6 \\ - 3 \end{array}$$

$$\begin{array}{r} 4 \\ + 2 \end{array} \quad \begin{array}{r} 4 \\ - 1 \end{array} \quad \begin{array}{r} 4 \\ \div 2 \end{array} \quad \begin{array}{r} 6 \\ - 4 \end{array} \quad \begin{array}{r} 4 \\ - 3 \end{array} \quad \begin{array}{r} 2 \\ \div 1 \end{array} \quad \begin{array}{r} 5 \\ + 5 \end{array} \quad \begin{array}{r} 2 \\ \times 3 \end{array} \quad \begin{array}{r} 2 \\ + 3 \end{array} \quad \begin{array}{r} 2 \\ + 4 \end{array}$$

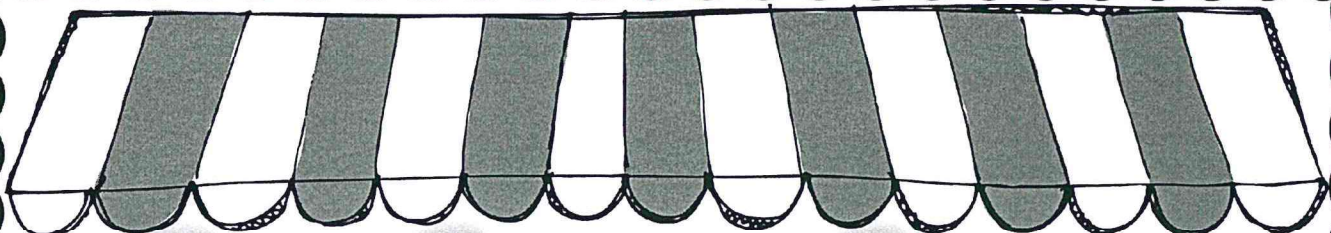
$$\begin{array}{r} 1 \\ \times 2 \end{array} \quad \begin{array}{r} 4 \\ + 3 \end{array} \quad \begin{array}{r} 5 \\ + 2 \end{array} \quad \begin{array}{r} 10 \\ \div 5 \end{array} \quad \begin{array}{r} 3 \\ \div 3 \end{array} \quad \begin{array}{r} 4 \\ + 2 \end{array} \quad \begin{array}{r} 3 \\ \div 3 \end{array} \quad \begin{array}{r} 1 \\ \times 1 \end{array} \quad \begin{array}{r} 8 \\ - 4 \end{array} \quad \begin{array}{r} 2 \\ + 4 \end{array}$$

$$\begin{array}{r} 15 \\ \div 5 \end{array} \quad \begin{array}{r} 7 \\ - 3 \end{array} \quad \begin{array}{r} 6 \\ - 4 \end{array} \quad \begin{array}{r} 9 \\ - 4 \end{array} \quad \begin{array}{r} 25 \\ \div 5 \end{array} \quad \begin{array}{r} 2 \\ \times 3 \end{array} \quad \begin{array}{r} 3 \\ \times 4 \end{array} \quad \begin{array}{r} 12 \\ \div 4 \end{array} \quad \begin{array}{r} 8 \\ - 5 \end{array} \quad \begin{array}{r} 2 \\ + 5 \end{array}$$

$$\begin{array}{r} 5 \\ \times 1 \end{array} \quad \begin{array}{r} 3 \\ \times 5 \end{array} \quad \begin{array}{r} 1 \\ \times 2 \end{array} \quad \begin{array}{r} 8 \\ \div 2 \end{array} \quad \begin{array}{r} 3 \\ + 2 \end{array} \quad \begin{array}{r} 5 \\ - 3 \end{array} \quad \begin{array}{r} 2 \\ + 3 \end{array} \quad \begin{array}{r} 9 \\ - 5 \end{array} \quad \begin{array}{r} 1 \\ + 1 \end{array} \quad \begin{array}{r} 15 \\ \div 5 \end{array}$$

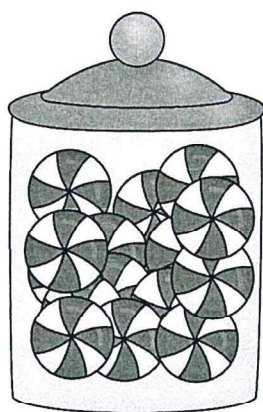
$$\begin{array}{r} 3 \\ \times 5 \end{array} \quad \begin{array}{r} 10 \\ \div 2 \end{array} \quad \begin{array}{r} 5 \\ \times 1 \end{array} \quad \begin{array}{r} 5 \\ \times 3 \end{array} \quad \begin{array}{r} 15 \\ \div 5 \end{array} \quad \begin{array}{r} 4 \\ \div 1 \end{array} \quad \begin{array}{r} 3 \\ - 2 \end{array} \quad \begin{array}{r} 5 \\ \times 5 \end{array} \quad \begin{array}{r} 5 \\ + 5 \end{array} \quad \begin{array}{r} 25 \\ \div 5 \end{array}$$

$$\begin{array}{r} 3 \\ \div 3 \end{array} \quad \begin{array}{r} 5 \\ - 4 \end{array} \quad \begin{array}{r} 9 \\ - 4 \end{array} \quad \begin{array}{r} 3 \\ - 2 \end{array} \quad \begin{array}{r} 6 \\ - 1 \end{array} \quad \begin{array}{r} 4 \\ \times 5 \end{array} \quad \begin{array}{r} 5 \\ \times 1 \end{array} \quad \begin{array}{r} 5 \\ - 4 \end{array} \quad \begin{array}{r} 2 \\ + 3 \end{array} \quad \begin{array}{r} 3 \\ \times 5 \end{array}$$

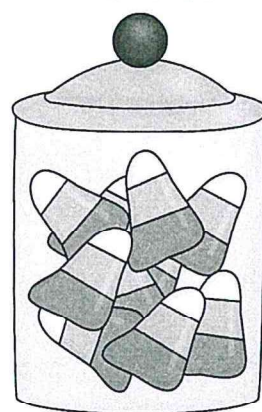


# The Candy Corner

## \*Bulk Candy\*



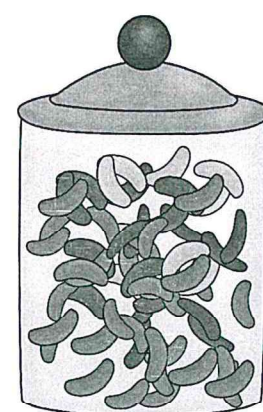
Peppermints  
\$2.37/pound



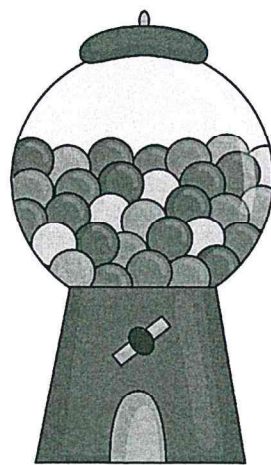
Candy Corn  
\$5.78/pound



Tootsie Rolls  
\$7.61/pound



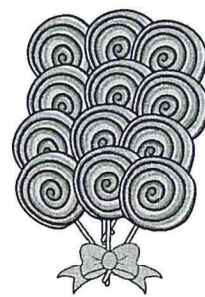
Jelly Beans  
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Gumballs  
.75/spin



Grape Pops  
\$1.25/three



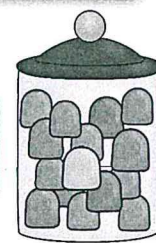
Swirly Pops  
\$19.39/dozen



Strawberry Pops  
\$4.54/six



GRAB BAG!  
\$6.52/pound



Gumdrops  
\$3.23/scoop



# Shopping at The Candy Corner

## MULTIPLYING & DIVIDING DECIMALS (MULTI-STEP)

1. Buy at least 7 pounds of candy of your choice PLUS at least two dozen lollipops of your choice. Show all of your work and write the total price. Then, find out how much it would cost if you split the price between 4 people.

Work Space

<u>Answers</u>
Total Price of Candy = _____
Cost for 4 people = _____

2. Cheryl, Paul and 3 of their friends split 8 pounds of Tootsie Rolls. How much does each person pay?

Work Space

3. Candy Corn went on sale for HALF the regular price the week after Halloween. How much would 5 pounds cost now?

Work Space

## All Operations (G)

Find each sum, difference, product, or quotient.

$\frac{20}{\div 4}$	$\frac{1}{+ 3}$	$\frac{10}{- 5}$	$\frac{4}{- 1}$	$\frac{2}{+ 5}$	$\frac{5}{- 3}$	$\frac{5}{- 2}$	$\frac{8}{- 3}$	$\frac{4}{\times 2}$	$\frac{6}{\div 3}$
---------------------	-----------------	------------------	-----------------	-----------------	-----------------	-----------------	-----------------	----------------------	--------------------

$\frac{3}{\times 5}$	$\frac{5}{- 2}$	$\frac{12}{\div 3}$	$\frac{3}{\div 1}$	$\frac{1}{\times 1}$	$\frac{3}{\times 3}$	$\frac{4}{\times 1}$	$\frac{5}{\div 5}$	$\frac{3}{+ 4}$	$\frac{5}{\times 1}$
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$\frac{4}{- 3}$	$\frac{2}{\times 2}$	$\frac{8}{- 3}$	$\frac{8}{- 3}$	$\frac{12}{\div 4}$	$\frac{5}{+ 2}$	$\frac{1}{+ 1}$	$\frac{4}{- 3}$	$\frac{15}{\div 5}$	$\frac{9}{- 5}$
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$\frac{6}{- 4}$	$\frac{10}{- 5}$	$\frac{5}{+ 4}$	$\frac{4}{\times 3}$	$\frac{8}{- 3}$	$\frac{12}{\div 3}$	$\frac{3}{+ 3}$	$\frac{5}{\times 2}$	$\frac{4}{\div 2}$	$\frac{3}{\times 3}$
-----------------	------------------	-----------------	----------------------	-----------------	---------------------	-----------------	----------------------	--------------------	----------------------

$\frac{4}{\times 5}$	$\frac{4}{\times 5}$	$\frac{1}{\times 1}$	$\frac{20}{\div 4}$	$\frac{2}{\div 2}$	$\frac{1}{\times 4}$	$\frac{3}{+ 1}$	$\frac{3}{+ 2}$	$\frac{2}{+ 3}$	$\frac{20}{\div 5}$
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$\frac{4}{- 3}$	$\frac{5}{- 1}$	$\frac{3}{+ 4}$	$\frac{8}{\div 4}$	$\frac{3}{\div 1}$	$\frac{8}{- 3}$	$\frac{3}{+ 3}$	$\frac{15}{\div 3}$	$\frac{1}{+ 3}$	$\frac{1}{\div 1}$
-----------------	-----------------	-----------------	--------------------	--------------------	-----------------	-----------------	---------------------	-----------------	--------------------

$\frac{4}{\times 5}$	$\frac{4}{+ 4}$	$\frac{5}{+ 3}$	$\frac{16}{\div 4}$	$\frac{2}{+ 4}$	$\frac{9}{\div 3}$	$\frac{3}{+ 3}$	$\frac{2}{\times 2}$	$\frac{4}{\div 2}$	$\frac{2}{\times 2}$
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$\frac{3}{+ 3}$	$\frac{16}{\div 4}$	$\frac{2}{- 1}$	$\frac{1}{\times 4}$	$\frac{2}{\times 3}$	$\frac{12}{\div 4}$	$\frac{4}{- 1}$	$\frac{5}{+ 4}$	$\frac{5}{+ 5}$	$\frac{5}{- 4}$
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$\frac{1}{\times 4}$	$\frac{2}{+ 5}$	$\frac{4}{+ 2}$	$\frac{5}{\div 5}$	$\frac{7}{- 2}$	$\frac{5}{\times 4}$	$\frac{6}{- 5}$	$\frac{4}{- 3}$	$\frac{10}{\div 5}$	$\frac{9}{\div 3}$
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$\frac{3}{+ 2}$	$\frac{2}{\div 1}$	$\frac{8}{\div 4}$	$\frac{12}{\div 4}$	$\frac{2}{\times 2}$	$\frac{9}{\div 3}$	$\frac{2}{+ 5}$	$\frac{6}{- 3}$	$\frac{4}{- 1}$	$\frac{7}{- 4}$
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