Lesson 18

Objective: Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

Suggested Lesson Structure

Total Time	(60 minutes)
Student Debrief	(10 minutes)
Concept Development	(35 minutes)
Fluency Practice	(15 minutes)



Fluency Practice (15 minutes)

•	Sprint: Multiply and Divide with 1 and 0 3.0A.5	(8 minutes)
•	Multiply with 10 3.NBT.3	(3 minutes)
		(

Group Counting **3.0A.1** (4 minutes)

Sprint: Multiply and Divide with 1 and 0 (8 minutes)

Materials: (S) Multiply and divide with 1 and 0 Sprint

Note: This Sprint reviews Lesson 16, which involves rules and properties when multiplying and dividing with 1 and 0.

Multiply with 10 (3 minutes)

Note: This fluency activity anticipates Lesson 19, which involves multiplying by multiples of 10 using the place value chart.

- T: I'll say a fact. You say the whole equation. 10×1 .
- S: $10 \times 1 = 10$.

Continue with the following possible sequence: 10×2 , 10×3 , 10×9 , and 10×7 .

- T: I'll say a product that is a multiple of 10. You say the multiplication fact starting with 10. 20.
- S: $10 \times 2 = 20$.

Continue with the following possible sequence: 30, 40, 80, and 60.



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

Group Counting (4 minutes)

Note: Group counting reviews interpreting multiplication as repeated addition. These counts review multiplication taught previously in the module. Direct students to count forward and backward, occasionally changing the direction of the count:

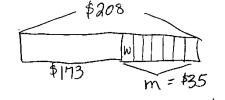
- Sixes to 60
- Sevens to 70
- Eights to 80
- Nines to 90

Concept Development (35 minutes)

Materials: (S) Personal white board

Project the following word problem: Joe has \$173 in the bank. He earns the same amount of money each week for 7 weeks and puts this money in the bank. Now, Joe has \$208 in the bank. How much money does Joe earn each week?

- T: Draw a model to show the total amount of money Joe has in the bank at the end of the 7 weeks. At my signal, show me your personal white board. (Signal.)
- T: Do we know the amount of money Joe puts in the bank?
- S: No.
- T: Label this unknown on your model using the letter *m* for money. Then, write what *m* represents. (Students write.) Write an equation to show how to solve for *m*.
- S: (Write \$208 \$173 = *m*.)
- T: Solve for *m*, and write its value on your model.
- S: (Write *m* = \$35.)
- T: Is this answer reasonable?
- S: Yes, because \$173 + \$35 equals \$208, which is the total amount Joe has in the bank.
- T: Did we answer the question in the problem?
- S: No, we're trying to figure out how much money he earns each week.
- T: Adjust your model to show what you know about the amount of money Joe earns in 7 weeks.
- S: (Split \$35 into 7 equal pieces.)
- T: Label the unknown with the letter *w* to represent how much money Joe earns each week. Then, write what *w* represents.



m= number of dollars Joe put in bank

W= humber of dollars earned each week



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

225

Lesson 18

- S: (Label. Then, write what *w* represents.)
- T: Write an equation on your board and solve for w.
- S: (Write $\$35 \div 7 = w; w = \5 .)
- T: Discuss with a partner. Is it reasonable that Joe earns \$5 a week?
- S: Yes, it makes sense because that's how much I earn each week for my allowance! \rightarrow It's reasonable because \$5 a week for 7 weeks is \$35 and that's about \$40. \$173 is about \$170 and \$40 + \$170 is \$210, which is close to \$208.
- T: It's important to make sure the answer makes sense for every part of the problem!

Problem Set (20 minutes)

Students should do their personal best to complete the Problem Set within the allotted 20 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW approach used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- In Problem 1, you found that Sasha gives Rose a piece of yarn that is 27 centimeters long. Into how many 9-centimeter pieces can Rose cut this piece?
- In Problem 2, did Julio spend more time on his spelling homework or his math homework? How do you know?
- How are Problems 3 and 4 similar? Discuss with a partner.
- In Problem 5, if Cora weighs 5 pencils, what is the total weight for the pencils and the ruler? How do you know?
- Discuss with a partner the importance of checking the reasonableness of your answer.



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



226



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

When completing the Problem Set, students working above grade level may enjoy an open-ended extension. Offer students an option to choose one of the models and equations from the Problem Set to write their own word problem.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Take advantage of the opportunity in the Student Debrief to review personal and class goals regarding problem solving. Guide students to identify their strengths and weaknesses as problem solvers. Construct new goals for future work.





Lesson 18 Problem Set 3•3

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Grina	Date		
Directions: Use the RDW process for each problem.			
Directions: Use the RDW process for each problem. Explain why your answer is reasonable. 1. Rose has 6 pieces of yarn that are each 9 centimeters long. Sasha gives Rose a piece of yarn. Now Rose has a total of 81 centimeters of yarn. What is the length of the yarn that Sasha gives Rose?			
<u>91919191919</u>			
81 cm			
r=number of cm Rose has			
6 × 9 = r	11		
r= 54			
S = number of cm of yarn			
Sasha gives Rose	54+27≈50+30=80 My answer is reasonable because		
81-54=5	my estimate, soom, is close to		
Sasha gives Rose 27 cm o	fram 81 cm.		
 Julio spends 29 minutes doing his spelling homewind minutes. There are 7 math problems. How many 	prk. He then completes each math problem in 4		
m			
29 min. 4444444			
ĥ	•		
m= number of minutes Spent on math homewor	Hy answer is reasonable		
•	because 57 minutes is almost		
7x4=m m=28	an hour and 29 and 28 are each about half an hour.		
h = number of minutes sper homework	# 81		
29 + 28 = h	The last la		
h= 57	Julio spends 57 minutes on his homework.		
	blems involving all four operations and engage ^{ny} 3.E.7		
© 2013 Common Core, Inc. Some rights rescored, earmoneare.org	This work is locened under a Creative Commons Attribution-NonCommercial ShareAlite 10 Unported License,		
NYS COMMON CORE MATHEMATICS CURRICULUM	Lesson 18 Problem Set 3+3		
NYS COMMON CORE MATHEMATICS CURRICULUM	Lesson 18 Problem Set 3•3		
 Pearl buys 125 stickers. She gives 53 stickers to h 	er little sister. Pearl then puts 9 stickers on each page of 5. how many pages does Pearl put stickers on?		
	er little sister. Pearl then puts 9 stickers on each page of 5. how many pages does Pearl put stickers on?		
 Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker. 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? P = number of pages Pcarl puts stickers on.		
 Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker. 125 sHickers 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pcarl puts stickerson.72 \div 9 = P$		
3. Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker 125 sticker s 53 stickers 9 5 = number of stickers Pearl	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? P = number of pages Pearl puts stickers on. $72 \div 9 = P$ P = 8 Pearl puts stickers on 8 pages.		
3. Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker 125 sHckers 53 shickes 9, Fr. 9 S=number of stickers Pearl has left.	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? P = number of pages Pearl puts stickers n. 72÷9 = P P=8 Pearl puts stickers on 8 pages. My onewer is reasonable because.		
3. Pearl buys 125 stickers. She gives 53 stickers to he her album. If she uses all of her remaining sticker 125 sHckers 53 stickes 91	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer Ts reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.$		
3. Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker 125 sHckers 53 shickes 9, Fr. 9 S=number of stickers Pearl has left.	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? P = number of pages Pearl puts stickers n. 72÷9 = P P=8 Pearl puts stickers on 8 pages. My onewer is reasonable because.		
3. Pearl buys 125 stickers. She gives 53 stickers to here album. If she uses all of her remaining sticker 125 stickers 53 stickers 53 stickers 125 stickers 53 stickers 125 stickers 53 stickers 125 stickers 125 stickers 125 stickers 125 stickers $125 - 53 = 5$ $S = 72$	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 72$ and $72 + 50 = 122$. ard that is close to 125.		
3. Pearl buys 125 stickers. She gives 53 stickers to here album. If she uses all of her remaining sticker 125 stickers 53 stickers 53 stickers 125 stickers 53 stickers 125 stickers 53 stickers 125 stickers 125 stickers 125 stickers 125 stickers $125 - 53 = 5$ $S = 72$	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stictors on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 72$ and $72 + 50 = 122$. and that is close to 125. Inst. After each of his friends poured in 8 millillers, the		
 Pearl buys 125 stickers. She gives 53 stickers to h her album. If she uses all of her remaining sticker 125 stickers s Stickers 9 Stickers 9 S=number of stickers Pearl has left. 125-53 = S S = 72 Tanger's beaker had 45 milliliters of water in it at 15 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stictors on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 72$ and $72 + 50 = 122$. and that is close to 125. Inst. After each of his friends poured in 8 millillers, the		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 sHckers 53 shckers 53 shckers 53 shckers 54 shckers 55 shckers 54 shckers 55 shckers	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.and that is close to 125.Inst. After each of his friends poured in 8 millillers, thepoured water into Tanner's beaker?$		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker. 125 sHckers 5 53 stickus 1.1.5.5 sHckers 5 53 stickus 1.1.5.5 sHckers 7 53 stickus 1.1.5.5 sHckers 7 53 stickus 1.1.5.5 sHckers 7 54 stickus 1.1.5.5 stickers 7 55 stickus 1.1.5.5 stickers 1.1.5.5 sti	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.and that is close to 125.Inst. After each of his friends poured in 8 millitters, thepoured water into Tanner's beaker?f = humber of friendsUS \Rightarrow S = fF = L$.		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 sHckers 53 shckers 53 shckers 53 shckers 54 shckers 55 shckers 54 shckers 55 shckers	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.and that is close to 125.list. After each of his friends poured in 8 millillers, thepourd water into Tanner's beaker?f = humber of friendsUS \Rightarrow S = fG$ friends poured water into Tanner's		
 3. Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers s 53 stickers 9 53 stickers 9 54 stickers 9 55 stickers 9 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 72+50 = 122.ard that is close to 125.Inst. Atter each of his friends poured in 8 milliters, thepoured water into Tanner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G$ friends poured water into Tanner's beaker.		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 stickers 53 stickers 53 stickers 53 stickers 53 stickers 64 stickers 74 stickers 74	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 72 and 72 + 53 \approx 72 + 50 = 122.and that is close to 125.Itst. After each of his friends poured in 8 millillers, thepoured water into Tanner's beaker?f = number of friends48 \approx 8 = ff = 66$ friends poured water into Tanner's beaker.		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker. 125 sHckers 5 53 stickers 125 sHckers 5 53 stickers 125 sHckers 5 53 stickers 125 - 53 = 5 5 = 72 Tanner's beaker had 45 millitters of water in it at f beaker contained 93 millitters. How many friends 145 mL 18 friend s 13 - 45 = p p = 48 P a sticker stickers 125 - 53 = 5 5 = 72 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 12+50 = 122ard that is close to 125.Inst. After each of his friends poured in 8 millillers, thepoured water into Tanner's beaker?f = number of friendsUS \div S = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $US \Rightarrow 0$ and $48 + 45 \approx 50 + 45 = 95$ d that is close to 93.		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 stickers 7 53 stickes 9 53 stickes 9 54 stickers Pearl has left. 125 - 53 = S 5 = 72 Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 45 mL 8 45 mL 8 71 sticker 9 72 sticker 9 74 sticker 9 74 sticker 9 3. Cora weights 4 new, identical pencils and a new. To sticker 9 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 72+50 = 122ard that is close to 125.Inst. After each of his friends powerd in 8 milliters, thepowerd water timo Tanner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G$ friends powerd water into Tanner's beaker. y answer is reasonable because I know $y = 48$ and 48 + 45 $\approx 50 + 45 = 95$ od that is close to 3.		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 stickers 7 53 stickes 9 53 stickes 9 54 stickers Pearl has left. 125 - 53 = S 5 = 72 Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 45 mL 8 45 mL 8 71 sticker 9 72 sticker 9 74 sticker 9 74 sticker 9 3. Cora weights 4 new, identical pencils and a new. To sticker 9 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 72 + 53 \approx 72 + 50 = 122.and that is close to 125.Inst. Atter each of his friends poured in 8 milliters, thepoured water timo Tanner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6$. G friends poured water into Tanner's beaker. y answer is reasonable because I know (s = 48 and 48 + 45 $\approx 50 + 45 = 95$ d that is close to 9. he total weight of these items is 55 grams. She weights how eights of these items is 55 grams. She weights how eights of these items is 55 grams. She weights how eights of these items is 55 grams. She weights homes of grams each pencil weights		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 sHckers 5 S= number of shckers Pearl has left. (25 - 53 = S) S = 72 4. Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 93 - 45 = P P = 48 So and so a	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 72 + 53 \approx 72 + 50 = 122.and that is close to 125.inst. After each of his friends poured in 8 milliters, thepoured water into Janner's beaker?f = number of friendsUS \Rightarrow 8 = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $16 = 48$ and $48 + 45 \approx 50 + 45 = 95$ of that is close to 93. what is starms is starms. She weighs th does each pencil weigh? P = number of grams each pencil weighs $36 + 4 = p$		
 Pearl buys 125 stickers. She gives 53 stickers to her album. If she uses all of her remaining sticker 125 stickers 7 53 stickes 9 53 stickes 9 54 stickers Pearl has left. 125 - 53 = S 5 = 72 Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 45 mL 8 45 mL 8 71 sticker 9 72 sticker 9 74 sticker 9 74 sticker 9 3. Cora weights 4 new, identical pencils and a new. To sticker 9 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 12+50 = 122.and that is close to 125.Inst. After each of his friends poured in 8 millillers, thepoured water into Tanner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G friends poured water into Tanner'sbeaker.y answer is reasonable because I know(b = 48 and 48 + 45 \approx 50 + 45 = 95d that is close to 9.he total weight of these items is 58 grams. She weightshod seach penel weights36 \pm 4 = p$		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers s S= number of stickers Pearl has left. 125 - 53 = S S = 72 Tanner's backer had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 145 mL 18 f. [8] P= number of mL poured by friends 93 - 45 = P P = 48 Sea years. How many friends 559 19 P P P P Water south of graphs 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 72+50 = 122.and that is close to 125.inst. After each of his friends poured in 8 milliters, thepoured water into Janner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $U8 \Rightarrow 8 and 48+45 \approx 50 + 45 = 95$ of that is close to 93. What is close to 93. xh development weights 9 grams. Ead pencil weights 9 grams.		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers s S= number of stickers Pearl has left. 125 - 53 = S S = 72 Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 145 mL 181 friends P= number of mL poured by friends 93 - 45 = P P = 48 Sandar Street Street	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.and that is close to 125.Int. After each of his friends poured in 8 millillers, thepoured water into Tanner's besker?f = number of friends48 \approx 8 = ff = 66$ friends poured water into Tanner's beaker. y answer is reasonable because I know $16 = 48$ and $48 + 45 \approx 50 + 45 = 95$ d that is close to 93. The total weight of these terms is 58 grams. She weights a de the p P = 9 Ead pancil weights 9 grams. 4x9 = 36 and $36 + 19 = 35 + 20 = 5575 = 55$ for easonable because E		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker. 125 sHckers 7 S=number of shickers Pearl has left. 125 - 53 = S 5 = 72 4. Tanner's beaker had 45 millitters of water in it at f beaker contained 93 millitters. How many friends \$	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 12+50 = 122ard that is close to 125.list. After each of his friends poured in 8 millillers, thepoured water into Tanner's beaker?f = number of friendsUS \div 8 = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $US \pm 8 = 0$ that is close to 93. he total weight of these lenses is Sgrams. She weights those each penel weights? P = number of grams each pencil weights $36 \div 4 = P$ P = 9 Ead pancil weights 9 grams. Hy answer is reasonable because $X = 100000000000000000000000000000000000$		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers s S= number of stickers Pearl has left. 125 - 53 = S S = 72 Tanner's beaker had 45 milliliters of water in it at f beaker contained 93 milliliters. How many friends 145 mL 181 friends P= number of mL poured by friends 93 - 45 = P P = 48 Sandar Street Street	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers on. 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 72+50 = 122.and that is close to 125.inst. After each of his friends poured in 8 milliters, thepoured water into Janner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $U8 \Rightarrow 8 and 48+45 \approx 50 + 45 = 95$ of that is close to 93. What is close to 93. xh development weights 9 grams. Ead pencil weights 9 grams.		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers 7 S=number of stickers Pearl has left. 125-53 = S S = 72 Tanner's basker had 45 milliliters of water in it at 1 beaker contained 93 milliliters. How many friends 145mL 18 f. [8] P=number of mL poured by friends 93-45 = P P = 48 War steel and it weighs 19 grams. How many 559 199 P P P P W = number of grams to point weigh. 55-19 = W W = 36 	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because.9x8 = 12 and 72+53 \approx 72+50 = 122.and that is close to 125.Inst. After each of his friends poured in 8 millitlers, thepoured water into Tanner's bester?f = number of friends48 \div 8 = ff = 6G friends poured water into Tanner'sbeaker.y answer is reasonable because I know16 = 48 and 48 + 45 \approx 50 + 45 = 95of the total weight of these toms is 58 grams. She weightsa does each penel weightP = number of grams each pencil weighs 36 + 44 = P P = 9Ead pencil weights 9 grams.4x9 = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1xhq = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1xhq = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1xhq = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1xhq = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1xhq = 36 and 36 + 19 = 35 + 20 = 55My answer is reasonable because x = 1x = hecked my work with multiplicatroo and addition and get 55.$		
 Pearl buys 125 stickers. She gives 53 stickers to hher album. If she uses all of her remaining sticker 125 stickers 5 S= number of stickers Pearl has left. 125 - 53 = S S = 72 4. Tanner's beaker had 45 milliliters of water in it at 15 beaker contained 93 milliliters. How many friends P = number of mL poured by firing s 93 - 45 = P P = 48 P = 48 We a number of grams. How many friends 55 - 19 = W W = number of grams. W = number of grams. W = number of grams. S = number of grams. W = 30. W = Number of grams. W = 100 Her Her. W = 100 Her. W = 10	er little sister. Pearl then puts 9 stickers on each page of s, how many pages does Pearl put stickers on? $P = number of pages Pearl puts stickers 72 \div 9 = PP = 8Pearl puts stickers on 8 pages.My answer is reasonable because9x8 = 12 and 12+53 \approx 72+50 = 122ard that is close to 125.Inst. Atter each of his friends poured in 8 milliters, thepoured water into Tanner's beaker?f = number of friendsU8 \Rightarrow 8 = ff = 6G$ friends poured water into Tanner's beaker. y answer is reasonable because I know $16 = 48$ and $48 + 45 \approx 50 + 45 = 95$ and that is close to 9. hotal weight of these items is 55 grams. She weights that of scale to 9. hotal weight of grams each pencil weights $36 \div 44 = P$ P = 9 Each pencil weights 9 grams. 4x9 = 36 and $36 + 19 = 35 + 20 = 55My answer is reasonable because Ithere is reasonable because Ithere is reasonable because Ithere is reasonable because I4x9 = 36$ and $36 + 19 = 35 + 20 = 55My answer is reasonable because Ix$ checked my work with multiplication and addition and got 55.		

NYS COMMON CORE MATHEMATICS CURRICULUM

EUREKA MATH

Lesson 18:

Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



Multiply and Divide with 1 and 0

Α

Number Correct: _____

1.	×1=2
2.	×1=3
3.	×1=4
4.	×1=9
5.	8 × = 0
6.	9 × = 0
7.	4 × = 0
8.	5 × = 5
9.	6 × = 6
10.	7 × = 7
11.	3 × = 3
12.	0 ÷ 1 =
13.	0 ÷ 2 =
14.	0 ÷ 3 =
15.	0 ÷ 6 =
16.	1 × = 1
17.	4 ÷ = 4
18.	5 ÷ = 5
19.	6 ÷ = 6
20.	8 ÷ = 8
21.	×1=5
22.	3 × = 0

9 ÷ = 9	
8 × = 8	
×1=1	
0 ÷ 3 =	
×1=7	
6 × = 0	
4 × = 4	
0 ÷ 8 =	
0 × = 0	
1 ÷ 1 =	
×1=24	
17 × = 0	
32 × = 32	
0 ÷ 19 =	
46 × = 0	
0 ÷ 51 =	
64 × = 64	
×1 = 79	
0 ÷ 82 =	
×1=96	
27 × = 27	
43 × = 0	
	$8 \times _ = 8$ $_ \times 1 = 1$ $0 \div 3 = _$ $= 0$ $4 \times _ = 0$ $4 \times _ = 4$ $0 \div 8 = _$ $0 \times _ = 0$ $1 \div 1 = _$ $= 0$ $1 \div 1 = _$ $= 0$ $32 \times _ = 32$ $0 \div 19 = _$ $46 \times _ = 0$ $0 \div 51 = _$ $64 \times _ = 64$ $_ \times 1 = 79$ $0 \div 82 = _$ $= 41 = 24$ $27 \times _ = 27$



Lesson 18:

Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



Lesson 18 Sprint 3-3

Number Correct: _____

Improvement: _____

B

Multiply and Divide with 1 and 0

1.	×1=3
2.	×1=4
3.	×1=5
4.	×1=8
5.	7 × = 0
6.	8 × = 0
7.	3 × = 0
8.	4 × = 4
9.	5 × = 5
10.	6 × = 6
11.	2 × = 2
12.	0 ÷ 2 =
13.	0 ÷ 3 =
14.	0 ÷ 4 =
15.	0 ÷ 7 =
16.	1 × = 1
17.	3 ÷ = 3
18.	4 ÷ = 4
19.	5 ÷ = 5
20.	7 ÷ = 7
21.	×1=6
22.	4 × = 0

8 ÷ = 8	
7 × = 7	
×1=1	
0 ÷ 5 =	
×1=9	
5 × = 0	
9 × = 9	
0 ÷ 6 =	
1÷1=	
0 × = 0	
×1=34	
16 × = 0	
31 × = 31	
0 ÷ 18 =	
45 × = 0	
0 ÷ 52 =	
63 × = 63	
×1 = 78	
0 ÷ 81 =	
×1=97	
26 × = 26	
42 × = 0	
	$7 \times _ = 7$ $_ \times 1 = 1$ $0 \div 5 = _$ $_ \times 1 = 9$ $5 \times _ = 0$ $9 \times _ = 9$ $0 \div 6 = _$ $1 \div 1 = _$ $0 \times _ = 0$ $_ \times 1 = 34$ $16 \times _ = 0$ $31 \times _ = 31$ $0 \div 18 = _$ $45 \times _ = 0$ $0 \div 52 = _$ $63 \times _ = 63$ $_ \times 1 = 78$ $0 \div 81 = _$ $_ \times 1 = 97$ $26 \times _ = 26$



Lesson 18:

Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



Name

Date _____

Use the RDW process for each problem. Explain why your answer is reasonable.

1. Rose has 6 pieces of yarn that are each 9 centimeters long. Sasha gives Rose a piece of yarn. Now, Rose has a total of 81 centimeters of yarn. What is the length of the yarn that Sasha gives Rose?

2. Julio spends 29 minutes doing his spelling homework. He then completes each math problem in 4 minutes. There are 7 math problems. How many minutes does Julio spend on his homework in all?



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



3. Pearl buys 125 stickers. She gives 53 stickers to her little sister. Pearl then puts 9 stickers on each page of her album. If she uses all of her remaining stickers, on how many pages does Pearl put stickers?

4. Tanner's beaker had 45 milliliters of water in it at first. After each of his friends poured in 8 milliliters, the beaker contained 93 milliliters. How many friends poured water into Tanner's beaker?

5. Cora weighs 4 new, identical pencils and a ruler. The total weight of these items is 55 grams. She weighs the ruler by itself and it weighs 19 grams. How much does each pencil weigh?



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



Name

Date _____

Use the RDW process to solve. Explain why your answer is reasonable.

On Saturday, Warren swims laps in the pool for 45 minutes. On Sunday, he runs 8 miles. It takes him 9 minutes to run each mile. How long does Warren spend exercising over the weekend?



Lesson 18:

Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



Name _____

Date _____

Use the RDW process for each problem. Explain why your answer is reasonable.

1. Mrs. Portillo's cat weighs 6 kilograms. Her dog weighs 22 kilograms more than her cat. What is the total weight of her cat and dog?

2. Darren spends 39 minutes studying for his science test. He then does 6 chores. Each chore takes him 3 minutes. How many minutes does Darren spend studying and doing chores?

3. Mr. Abbot buys 8 boxes of granola bars for a party. Each box has 9 granola bars. After the party, there are 39 bars left. How many bars were eaten during the party?



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.



4. Leslie weighs her marbles in a jar, and the scale reads 474 grams. The empty jar weighs 439 grams. Each marble weighs 5 grams. How many marbles are in the jar?

5. Sharon uses 72 centimeters of ribbon to wrap gifts. She uses 24 centimeters of her total ribbon to wrap a big gift. She uses the remaining ribbon for 6 small gifts. How much ribbon will she use for each small gift if she uses the same amount on each?

6. Six friends equally share the cost of a gift. They pay \$90 and receive \$42 in change. How much does each friend pay?



Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

