

Your Turn: Textbook Problem Review, Student Responses, & Sequencing

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Problem # 1

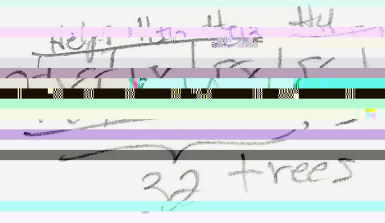
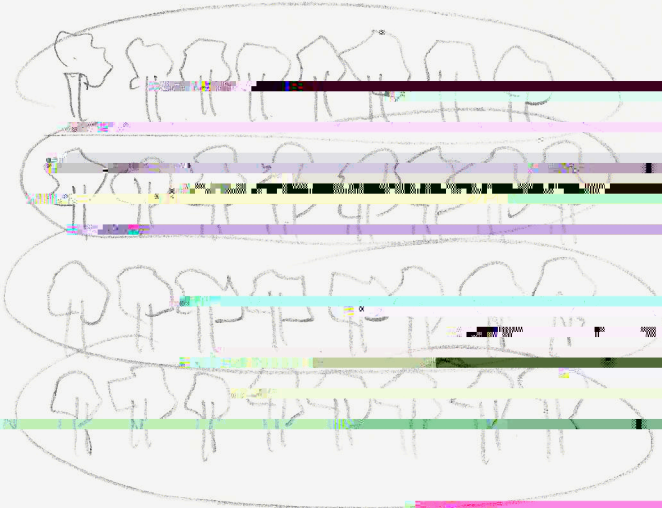
Grade Level: 3-4

Learning Goals: District

Modifications to problem: None

Possible Student Responses & Sequence

Lucas is in charge of planting trees at the park. He gives 32 trees to a team of 4 helpers. Each helper plants an equal number of trees. How many trees will each helper plant?



8 trees to each helper

32 trees
4 helpers

8 trees for each helper



$$\begin{array}{r} 8 \overline{)32} \\ -32 \\ \hline 00 \end{array}$$

8 trees for each helper
because:
8 — trees
x 4 — helpers
32 — trees

Fact family

$$\begin{aligned} 6 \times 8 &= 32 \\ 8 \times 4 &= 32 \\ 32 \div 4 &= 8 \\ 32 \div 8 &= 4 \end{aligned}$$

Problem # 4

Grade Level: 3-4

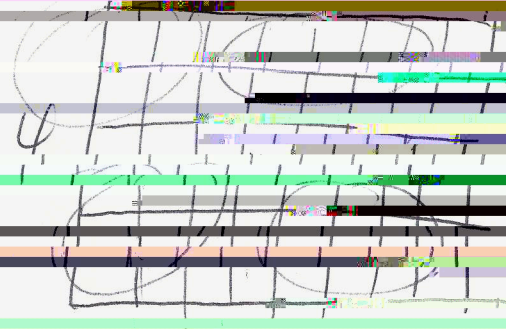
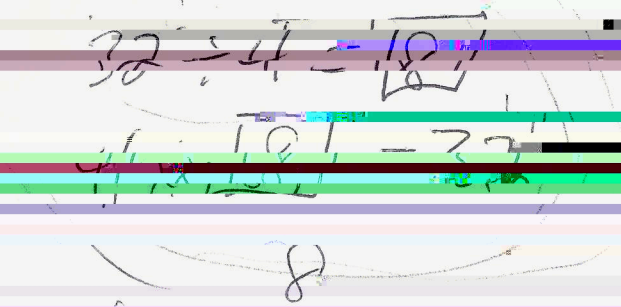
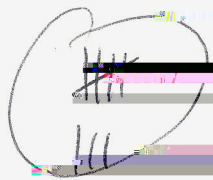
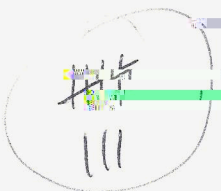
Learning Goal: Lucas is in charge of planting trees at the park. He gives 32 trees to a team of 4 helpers. Each helper plants an equal number of trees. How many trees will each helper plant?

Prerequisite: _____



1000000

$$32 \div 4 = 8$$



1000000

repeated addition

0	1
4	2
8	3
12	4
16	5
20	6
24	7
28	8
32	

also repeated addition



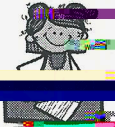
20 is too high to subtract
 $5 \times 4 = 20$, $2 + 4 = 8$
and 1 tower

2nd helper

Problem # 4

Grade Level: 3

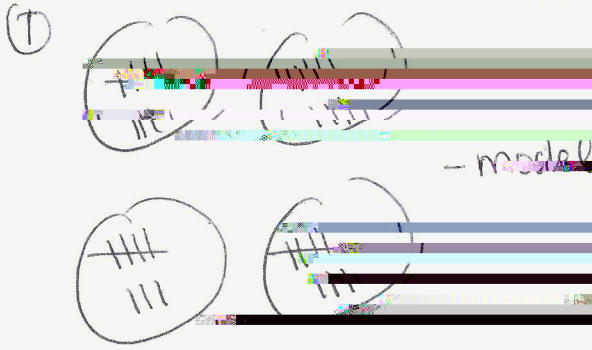
Group Recorder: [Name]



Learning Goal: I can use a strategy to solve a division problem.

Modification: [Blank]

Possible Student Responses: [Blank]



③

$$8 \times 4 = 32 \text{ trees}$$

groups

$$\begin{array}{r} 5 \times 4 = 20 \\ 3 \times 4 = 12 \\ \hline 8 \end{array}$$

partial products

$$32 \div 4 = 8$$

④ $32 \div 8 = 4$ related

facts

I know that $8 \times 4 = 32$

so $32 \div 8 = 4$

Problem # 5

Learning Goal: Multiply 2-digit numbers by 1-digit numbers

Model: Area Model

Possible Student Responses:



$$\begin{array}{r} 51 \\ \times 4 \\ \hline 204 \end{array}$$

At the school store, Isabella buys 4 notebooks. Each notebook contains 51 sheets of paper. How many pieces of paper did Isabella buy?

(2) Repeated Addition

$$51 + 51 + 51 + 51 = 204$$

(3) Base 10 Blocks

(3) Strip Diagram

(3) Area Models

(3) Number Sentences

(3)

$$50 \times 4 = 200$$

$$1 \times 4 = 4$$

$$\underline{200} + \underline{4} = 204$$

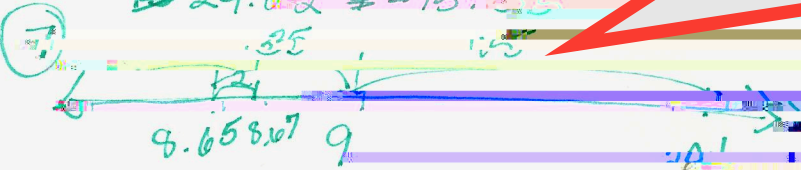
(1) Draw Picture

Learning Goal:

Modification: problem?

Possible Student Responses & Strategies

Zoey bought a football and a t-shirt at the store. She paid \$15.35 for the football. She paid a total of \$24.02 for the football and the t-shirt. How much did Zoey pay for the t-shirt?



Subtracting ~~in~~ in Parts

$$24.02 - 15.35 = 8.67$$

$$24.02 - .02 = 24$$

$$24 - 15 = 9$$

$$9.00 - .33 = 8.67$$

Subtract Back

$$24.02 - .02 = 24$$

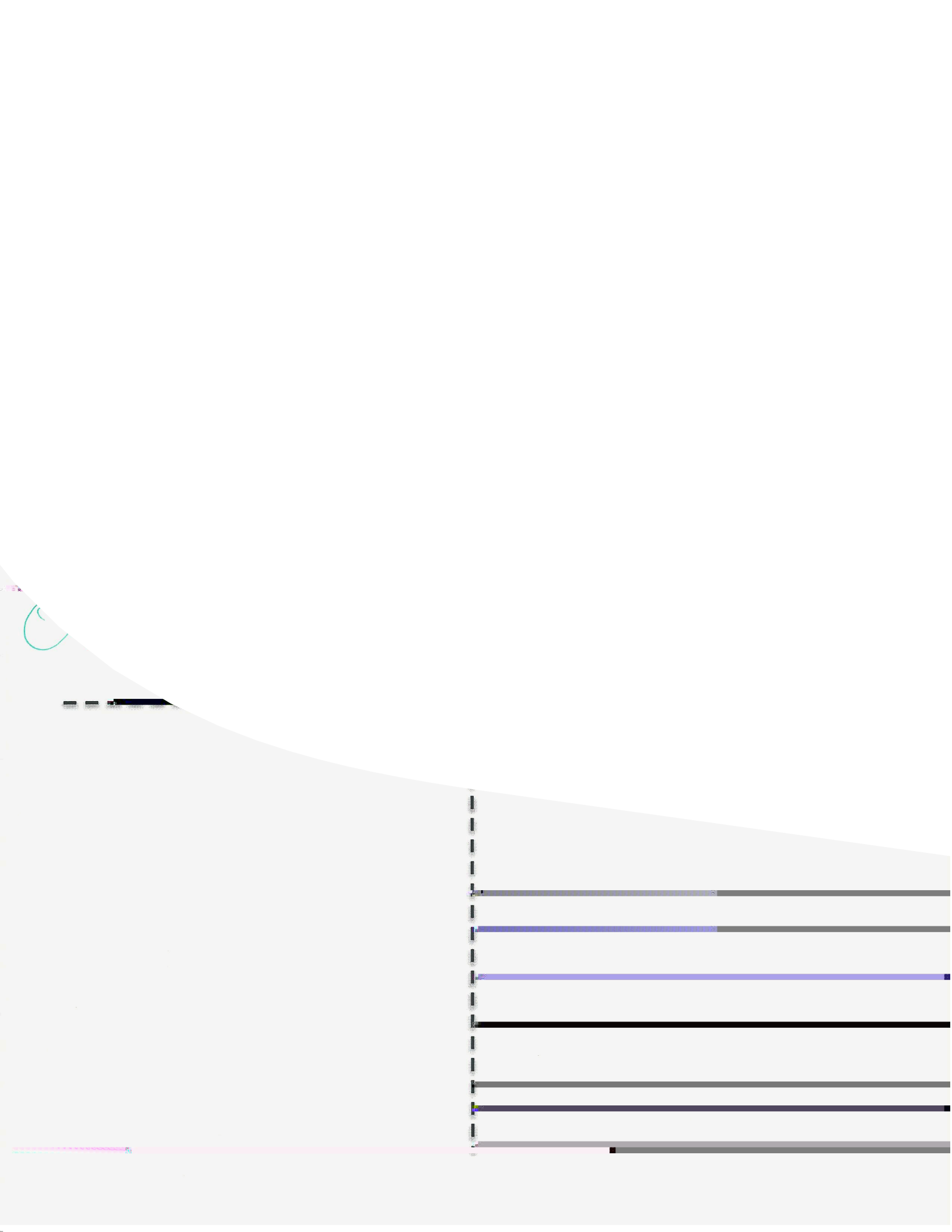
$$24 - 15 = 9$$

$$15.35 + 8.67 = 24.02$$

$$15.00 + 8.00 = 23.00$$

$$23.00 + .35 = 23.35$$

$$23.35 + .67 = 24.02$$

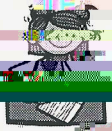


Problem #

8/9

Standards E-6

Group 3



Learning

Modifications to Problem?

Possible Student Responses & Sequence

#8 Partial Quotient

$$\begin{array}{r}
 64 \\
 8 \overline{) 512} \\
 \underline{- 80} \\
 432
 \end{array}$$

8x10 groups

$$\begin{array}{r}
 32 \\
 - 32 = 8 \times 4 \text{ groups} \\
 \hline
 432 \\
 \underline{- 80} \\
 352 \\
 \underline{- 80} \quad 8 \times 10 \text{ groups} \\
 272 \\
 \underline{- 80} \quad 8 \times 10 \text{ groups} \\
 192 \\
 \underline{- 80} \quad 8 \times 10 \text{ groups} \\
 112 \\
 \underline{- 80} \quad 8 \times 10 \text{ groups} \\
 32
 \end{array}$$

rip diagram

#9

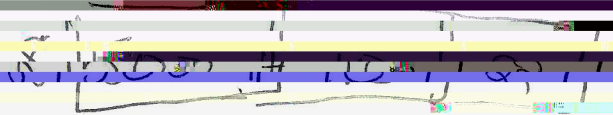
$$\begin{array}{r}
 480 \\
 15 \overline{) 720} \\
 \underline{- 30} \\
 420 \\
 \underline{- 30} \\
 390 \\
 \underline{- 30} \\
 360 \\
 \underline{- 30} \\
 330 \\
 \underline{- 30} \\
 300 \\
 \underline{- 30} \\
 270 \\
 \underline{- 30} \\
 240 \\
 \underline{- 30} \\
 210 \\
 \underline{- 30} \\
 180 \\
 \underline{- 30} \\
 150 \\
 \underline{- 30} \\
 120 \\
 \underline{- 30} \\
 90 \\
 \underline{- 30} \\
 60 \\
 \underline{- 30} \\
 30 \\
 \underline{- 30} \\
 0
 \end{array}$$

End #1

$$15 \overline{) 480}$$

Mock Spk

118 Area Model



Repeated

Sub 5/10

Least 8