

## Money in the Piggy Bank

Carmen and Rafael each have some money in their piggy banks. The value in each of their banks is greater than \$2.00 but less than \$3.00.

- Carmen has one dollar bill and nine coins.
- Rafael has one dollar bill and seven coins.
- Rafael has more money than Carmen.

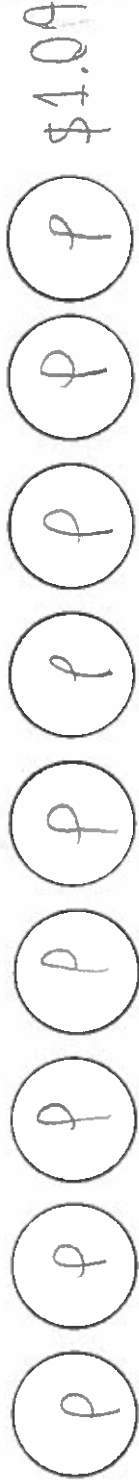
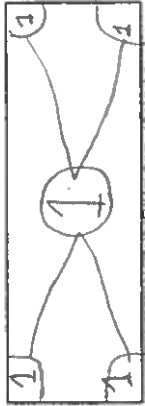
What coins could each child have in their piggy bank? How much money could each child have in their piggy bank?

Explain your thinking using numbers, symbols, and words.

Student work samples on  
following pages.

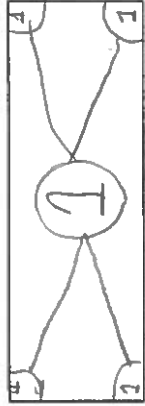
Possible Graphic Organizer

Carmen's Money



\$1.09

Rafael's Money



\$1.07

JF solved the problem by counting and writing the

Possible Graphic Organizer

Carmen's Money	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin-bottom: 5px; display: flex; align-items: center; justify-content: center;">\$1</div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 5px;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">P</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">P</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">P</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">P</div> </div> <p style="margin-top: 5px; text-align: center;">\$2.05 less than</p> </div>
Rafael's Money	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 100px; height: 30px; margin-bottom: 5px; display: flex; align-items: center; justify-content: center;">\$1</div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 5px;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">Q</div> </div> <p style="margin-top: 5px; text-align: center;">\$2.75 more than</p> </div>

Since Rafael has one dollar and seven coins I can make them all quarters so 4 of them would go to 2 dollars and the other 3 would make 75 cents and Carmen has one dollar and I gave her 4 quarter and 5 pines so she would have two dollars and 5 cents.

Possible Graphic Organizer

Carmen's Money

$\$1.00$

Rafael's Money

$\$1.00$

$$\underline{\$2.26} \quad \boxed{<} \quad \underline{\$2.75}$$

Carmen		Rafael	
Q-1	\$1.00	Q-1	\$1.00
Q-4	\$1.00	Q-7	\$1.75
D-1	\$0.10		
N-3	\$0.15		
P-1	\$0.01		
	<u>\$2.26</u>		<u>\$2.75</u>

I solved the problem by placing up and placing a for way. I solved it by placing up and placing a for way.

quarter P for dime was N for nickel P for penny. Then I made sure it was right.

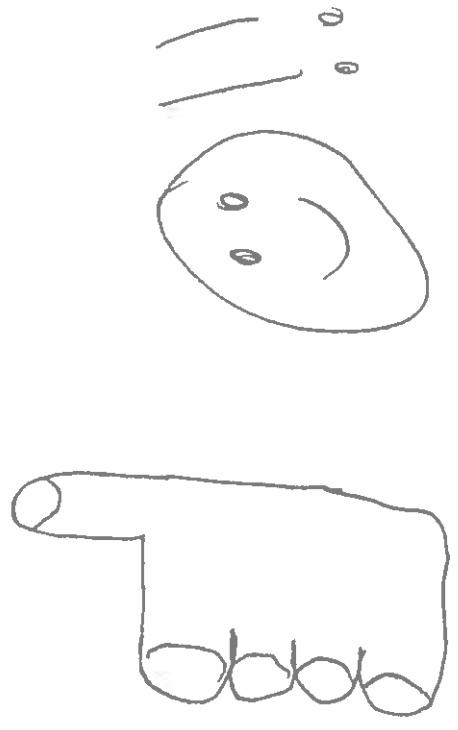
answer,

got my

how +

that's

and



Rich Mathematical Task – Grade 3 – Money in the Piggy Bank

Possible Graphic Organizer

Carmen's Money

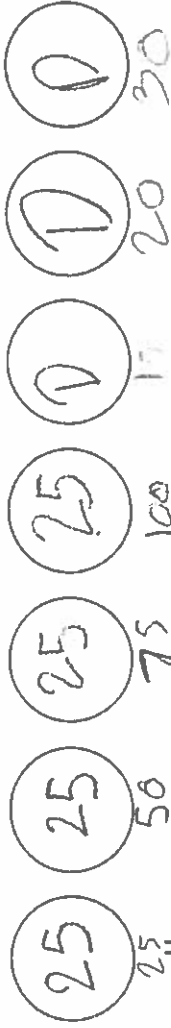
\$1



\$2.05

Rafael's Money

~~\$1~~



\$2.30

I gave Rafael \$2.30. And Carmen \$2.05.

Possible Graphic Organizer

<p>Carmen's Money</p> <div style="border: 1px solid black; width: 100px; height: 40px; margin-bottom: 10px; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 2em;">\$</span> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>\$1.00</p> </div> <div style="text-align: center;"> <p>\$1.25</p> </div> <div style="text-align: center;"> <p>\$1.50</p> </div> <div style="text-align: center;"> <p>\$1.75</p> </div> <div style="text-align: center;"> <p>\$2.00</p> </div> <div style="text-align: center;"> <p>\$2.25</p> </div> <div style="text-align: center;"> <p>\$2.39</p> </div> <div style="text-align: center;"> <p>\$2.49</p> </div> <div style="text-align: center;"> <p>\$2.50</p> </div> </div> <p style="text-align: center; font-size: 1.5em;">\$2.50</p>	<p>Rafael's Money</p> <div style="border: 1px solid black; width: 100px; height: 40px; margin-bottom: 10px; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 2em;">\$</span> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>\$1.00</p> </div> <div style="text-align: center;"> <p>\$1.25</p> </div> <div style="text-align: center;"> <p>\$1.50</p> </div> <div style="text-align: center;"> <p>\$1.75</p> </div> <div style="text-align: center;"> <p>\$2.00</p> </div> <div style="text-align: center;"> <p>\$2.25</p> </div> <div style="text-align: center;"> <p>\$2.50</p> </div> </div> <p style="text-align: center; font-size: 1.5em;">\$2.75</p>
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I know because I counted up from one dollar <sup>upto</sup> two fifty I also counted from one dollar <sup>upto</sup> two seventy five,

Carriens



\$2.50

25 25

\$10.00

Rafai



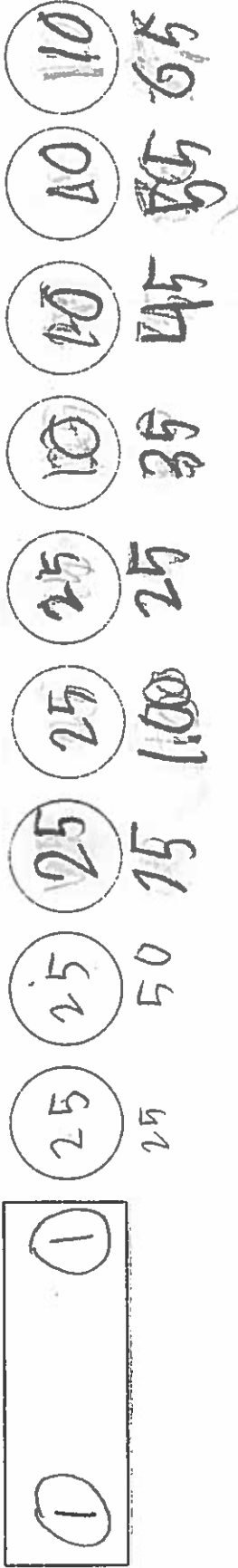
\$1.00

+ 0.181	
\$2.175	

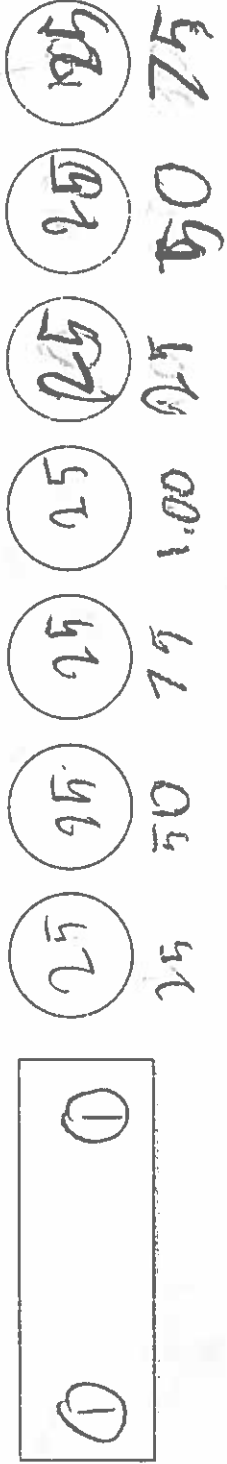


Possible Graphic Organizer

Carmen's Money



Rafael's Money



first I gave carmen \$1.00 than I gave carmen 65¢. Next I gave Rafael a \$1.00 and 75¢.

Rich Mathematical Task – Grade 3 – Money in the Piggy Bank

Possible Graphic Organizer

<p>Carmen's Money \$1.00</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>\$1.00</p> </div>	<p>\$1.25    \$1.50    \$1.75    \$2.00</p> <p>Q    Q    Q    Q</p>	<p>\$2.25    \$2.30    \$2.35    \$2.40    \$2.41</p> <p>Q    N    N    N    P</p>	<p>\$2.41</p>
<p>Rafael's Money \$1.00</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>\$1.00</p> </div>	<p>\$1.25    \$1.50    \$1.75    \$2.00</p> <p>Q    Q    Q    Q</p>	<p>\$2.25    \$2.50    \$2.60</p> <p>Q    Q    D</p>	<p>\$2.60</p>

$\$2.41 < \$2.60$   
 $\$2.41 < \$2.60$   
 $\$2.60 > \$2.41$   
 $\$2.60 > \$2.41$

I solved this problem by adding 4 quarters to both of them so they could now have 2 dollars but I only added one quarter to Carmen's and I added 2 quarters to Rafael's. Then I gave Carmen 3 nickels and a penny and Carmen's money turned out to be \$2.41. I added a dime to Rafael and he got \$2.60.