

Strawberries

Olga got a summer job picking strawberries five days a week. On the first day she earned \$5.00, on her second day she earned \$3.50, on her third day she earned \$4.00, on her fourth day she earned \$5.00, and on the fifth day she earned \$4.50. Show how to find about how much money she can plan to earn during her first four weeks of strawberry picking.

4165

Money made on first week

\$	5.00	-	first day
\$	3.50	-	second
\$	4.00	-	third
\$	5.00	-	fourth
\$	4.50	-	fifth
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\$	22.00	total of	first week

\$ 88.00 is
the total of
4 weeks

$$\begin{array}{r} \$22.00 \\ \times \quad 4 \text{ weeks} \\ \hline \$88.00 \end{array}$$

dollars worth
of strawberry
picking

Check by average
average (on calculator)

$$5 + 3.50 + 4 + 5 + 4.50 = 22 \div 5 = \$4.40$$

$$4.40 \times 5 = 22.00 \text{ for 1 week}$$

$$22.00 \times 4 = \$88.00 \text{ in my head}$$

or if she works every day for
4 weeks (28 days) =

$$4.40 \times 28 = \$123.20$$

I could make a lot more money if I
work each day.

Standard(s):

5.1.2- Use decimal models, place value, and number properties to add and subtract decimals (to the thousandths).

5.1.3- Select and use appropriate strategies to estimate fraction and decimal sums and differences.

Scores and Commentary: Sample #4165: Olga's Strawberries

Making Sense of <u>the Problem</u> 5	Representing and Solving <u>the Problem</u> 4	Communicating <u>Reasoning</u> 4	and <u>Accuracy</u> 4	Reflecting <u>Evaluating</u> 5
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Making Sense of the Problem: The translation of the key concepts is thoroughly developed. There is an extension of the student's understanding with the connection to averaging.

Representing and Solving the Problem: The process of adding daily amounts and multiplying it by the number of weeks is effective and complete.

Communicating and Reasoning: Through their use of mathematical language, the reasoning and communication, the reader is able to follow a clear and coherent path to the identified the solution.

Accuracy: The solution given is correct, mathematically justified, and supported by the work.

(Note: A 5 could be achieved if the student made a statement about the most (optimal amount) they could make or the range of possibilities what they could make.)

Reflecting and Evaluating: The student justifies the initial solution completely and is able to provide an additional solution and interprets the reasonableness of both.

1918

$$\begin{array}{r} \$ 5.00 \\ 5.00 \\ 4.50 \\ 4.00 \\ + 3.50 \\ \hline \$ 22.00 \\ \quad \times 4 \\ \hline \$ 88.00 \end{array}$$

1. I put all the # for 1 week
- ② times it by 4 weeks
- ③ double check my answers

Scores and Commentary: Sample #1918: Olga’s Strawberries

Making Sense of <u>the Problem</u> 4	Representing and Solving <u>the Problem</u> 4	Communicating <u>Reasoning</u> 4	and <u>Accuracy</u> 4	Reflecting <u>Evaluating</u> 1
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Making Sense of the Problem: The translation of the key concepts is adequately developed and displayed.

Representing and Solving the Problem: The strategy is effective and complete.

Communicating and Reasoning: The computation on the left side of the sample demonstrates a clear and coherent path to a solution.

Accuracy: The solution given is correct, mathematically justified, and supported by the work.

Reflecting and Evaluating: Although the student states he “doble chek my answe”, the review is underdeveloped. It is possible that the statements on the right are evidence of a reflection of the process. There is no mathematical evidence to support the student’s statement.

1916

4.00 W
4.50 F
3.50 T
5.00 M
5.00 TH

22.00

22.00 W
- 4.00

18.00 F
- 4.50

13.50 T
- 3.50

10.00 M
- 5.00

5.00 TH
- 5.00

0

Scores and Commentary: Sample #1916: Olga's Strawberries

Making Sense of <u>the Problem</u> 3	Representing and Solving <u>the Problem</u> 3	Communicating <u>Reasoning</u> 4	and <u>Accuracy</u> 2	Reflecting <u>Evaluating</u> 2
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Making Sense of the Problem: The translation of the task is partially developed and partially displayed. The student did not consider the “four” weeks.

Representing and Solving the Problem The strategy is partially effective and partially complete. A teacher could ask the student to read the question again and reflect on the strategy he chose.

Communicating and Reasoning: The mathematical language allows us to follow a clear path to their solution.

Accuracy: The solution given is incomplete.

Reflecting and Evaluating: The review is underdeveloped because the student only checked the calculations (by working backwards) of a partially effective strategy.