Anchor Set
A1 – A8

With Annotations
Prompt

Jackie wrote the expression shown.
\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Part A
Which computation can be performed first to determine the correct value of this expression?

○ A. \( \frac{2}{3} + \frac{3}{5} \)

○ B. \( \frac{3}{5} - \frac{3}{4} \)

○ C. \( \frac{3}{4} + \frac{1}{2} \)

○ D. \( -\frac{3}{4} + \frac{1}{2} \)

Part B
Jackie made an error when trying to determine the value of the expression.
Here are the steps she used.
\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]
Step 1: \( \frac{2}{3} \left( -\frac{3}{20} \right) + \frac{1}{2} \div \frac{1}{4} \)
Step 2: \( -\frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)
Step 3: \( -\frac{1}{10} + \frac{1}{8} \)
Step 4: \( \frac{1}{40} \)

Describe the error that Jackie made. Enter your description of the error in the space provided.

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used. Enter your answer and your work in the space provided.
### VH049376 Rubric Part A

<table>
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<th>Score</th>
<th>Description</th>
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<td>Student response is machine-scored and includes the following 1 element.</td>
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<td>• <strong>Computation component</strong> = 1 point</td>
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<td>o Correct selection of response B</td>
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| **0** | Student response is incorrect or irrelevant. |

### VH049376 Rubric Part B

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<thead>
<tr>
<th>Score</th>
<th>Description</th>
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<tbody>
<tr>
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<td>Student response includes the following 1 element.</td>
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<tr>
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<td>• <strong>Reasoning component</strong> = 1 point</td>
</tr>
<tr>
<td></td>
<td>o Valid description of the error made in finding the value of the expression.</td>
</tr>
</tbody>
</table>

Sample Student Response:

In Step 3, Jackie multiplied the fractions instead of dividing them.

Note:

• The response does not need to include the step number of the error to receive credit for this part.

| **0** | Student response is incorrect or irrelevant. |

### VH049376 Rubric Part C

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
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<tbody>
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<tr>
<td></td>
<td>o Valid work that determines the correct value of the expression.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Computation component</strong> = 1 point</td>
</tr>
<tr>
<td></td>
<td>o Correct value of 19/10 or equivalent.</td>
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</tbody>
</table>

Sample Student Response:
\[
\frac{2}{3}(\frac{3}{5}-\frac{3}{4}) + \frac{1}{2} ÷ \frac{1}{4} = \\
\frac{2}{3}(-\frac{3}{20}) + \frac{1}{2} ÷ \frac{1}{4} = \\
-\frac{1}{10} + \frac{1}{2} ÷ \frac{1}{4} = \\
-\frac{1}{10} + \frac{1}{2} \times 4 = \\
-\frac{1}{10} + 2 = 19/10
\]

Or other valid response.

Notes:

- The response may use show a different but correct sequence of operations for evaluating the expression (i.e. use the distributive property or divide before multiplying).

- The response may receive a total of 1 point for Part C if a correct answer is shown but is not accompanied by any, or sufficient, work to evidence a correct reasoning process.

- The response may receive full credit if work is shown starting at the incorrect step.

- The response cannot receive more than 1 point for reasoning if the explanations, while sufficient to indicate a correct process, contain nonsense statements.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Student response includes 1 of the 2 elements.</td>
</tr>
<tr>
<td>0</td>
<td>Student response is incorrect or irrelevant.</td>
</tr>
</tbody>
</table>
Part B: Score Point 1
Part C: Score Point 2

Part A
Which computation can be performed first to determine the correct value of the expression?

- A. \( \frac{3}{4} + \frac{3}{5} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{3}{4} + \frac{1}{2} \)
- D. \( -\frac{3}{4} + \frac{1}{2} \)

Part B
Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) \)

Step 2: \( \frac{1}{2} + \frac{1}{2} \div \frac{1}{4} \)

Step 3: \( -\frac{1}{10} + \frac{1}{2} \times \frac{1}{4} \)

Step 4: \( \frac{1}{40} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided.

Jackie made the error of when he did \( \frac{1}{2} \div \left( \frac{1}{4} \right) \) he forgot to use the reciprocal when he multiplied the two. He should have done \( \frac{1}{2} \times \frac{4}{1} \)

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

Step 1: \( \frac{2}{3} \left( \frac{3}{20} \right) + \frac{1}{2} \div \left( \frac{1}{4} \right) \)

Step 2: \( -\frac{1}{10} + \frac{1}{2} \div \left( \frac{1}{4} \right) \)

Step 3: \( -\frac{1}{10} + 2 \)

Answer: \( \frac{9}{10} \)
This response receives full credit. It includes the required element:

- A correct description of the error made in finding the value of the expression is given (he forgot to use the reciprocal when he multiplied the two. He should have done $\frac{1}{2} \times \frac{4}{1}$). Addressing the need to use the reciprocal of $\frac{1}{4}$ or the need to use $\frac{4}{1}$ is a valid description of the error.

Note: For this element, the response should address the error in the right side of the expression; $\frac{1}{2} \div \frac{1}{4} \neq \frac{1}{8}$.

This response receives full credit. It includes each of the two required elements:

- A correct value of $1\frac{9}{10}$ or equivalent is provided ($1\frac{9}{10}$).

- Supporting work is shown for determining the value of the expression ($-\frac{1}{10} + 2$). Repeating the work provided for Steps 1 and 2 is not needed. For this element, the response should address the corrected step; the step that shows how the answer was obtained ($-\frac{1}{10} + 2$).

Note: The response will receive full credit even if the student only shows work starting at the incorrect step.
Part A
Which computation can be performed first to determine the correct value of this expression?

- A. $\frac{2}{3} + \frac{3}{5}$
- B. $\frac{3}{5} - \frac{3}{4}$
- C. $\frac{3}{4} + \frac{1}{2}$
- D. $-\frac{3}{4} + \frac{1}{2}$

Part B
Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: $\frac{2}{3} \left( \frac{3}{20} \right) + \frac{1}{2} + \frac{1}{2}$

Step 2: $-\frac{1}{10} + \frac{1}{2} + \frac{1}{4}$

Step 3: $-\frac{1}{10} + \frac{1}{8}$

Step 4: $\frac{1}{20}$

Describe the error that Jackie made.

Enter your description of the error in the space provided.

Step two $\frac{1}{2} \div \frac{1}{4} \neq \frac{1}{10}$, it equals $\frac{4}{2}$ which equals 2.

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\[
\frac{-1}{10} + \frac{2}{3}
\]

answer: $1\frac{9}{10}$
Anchor Paper 2
Part B: Score Point 1

This response receives full credit. It includes the required element:

- A correct description of the error made in finding the value of the expression is given ($\frac{1}{2} \div \frac{1}{4} \neq \frac{1}{8}$, it equals $\frac{4}{2}$ which equals 2).

Note: Stating a step, other than step 3, will not detract from understanding (Step two) since stating the step is not required. The response does not need to mention the step number of the error in order to receive credit for this part.

Part C: Score Point 2

This response receives full credit. It includes each of the two required elements:

- A correct value is provided ($1 \frac{9}{10}$).

- Supporting work is shown for determining the value of the expression ($\frac{-1}{10} + \frac{2}{1}$).

Note: Stating $[- \frac{1}{10} + 2]$ shows the correct work was done for the left side of the expression $\frac{2}{3} \left( -\frac{3}{20} \right) = -\frac{1}{10}$ and for the right side of the expression $\frac{1}{2} \div \frac{1}{4} = 2$. 
Part A
Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{5} \)
- B. \( \frac{2}{3} - \frac{3}{5} \)
- C. \( \frac{3}{4} + \frac{1}{2} \)
- D. \( \frac{3}{4} + \frac{1}{2} \)

Part B
Jackie made an error when trying to determine the value of the expression.
Here are the steps she used.

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: \( \frac{2}{3} \left( -\frac{3}{20} \right) + \frac{1}{2} \div \frac{1}{4} \)
Step 2: \( -\frac{1}{10} + \frac{1}{2} \cdot \frac{1}{4} \)
Step 3: \( -\frac{1}{10} + \frac{1}{8} \)
Step 4: \( \frac{1}{5} \)

Describe the error that Jackie made.
Enter your description of the error in the space provided.

The error Jackie made was when she was dividing \( \frac{1}{2} \) and \( \frac{1}{4} \) she didn't flip the second number. So she ended up multiplying them instead of dividing.

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.
Enter your answer and your work in the space provided.

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \left( \frac{1}{4} \right)
\]

\[
\frac{2}{3} \times \frac{3}{20} = \frac{3}{20}
\]

\[
\frac{1}{2} \div \left( \frac{1}{4} \right) = 2
\]

\[
\frac{1}{10} + 2 = 2 \frac{1}{10}
\]
Anchor Paper 3
Part B: Score Point 1

This response receives full credit. It includes the required element:

- A correct description of the error made in finding the value of the expression is given (when she was dividing $\frac{1}{2}$ and $\frac{1}{4}$ she didn’t flip the second number. So she ended up multiplying them instead of dividing). Use of the phrase flip the second number indicates taking the reciprocal of $\frac{1}{4}$ and is an acceptable explanation.

Part C: Score Point 1

This response receives partial credit. It includes one of the two required elements:

- Supporting work is shown that could determine the value of the expression. Although there is a calculation error when simplifying the left side of the expression, the process is correct ($\frac{2}{3} \times \frac{3}{20} = \frac{1}{10}$). The product should be $-\frac{1}{10}$. The subsequent work follows correctly from that error ($\frac{1}{2} \div (\frac{1}{4}) = 2, \frac{1}{10} + 2 = 2 \frac{1}{10}$). The multiplication and division are performed correctly, the correct order of operations is used and the overall process is correct.

Note: A This is a process element and the process is correct. The calculation error is deducted from the computation element. For this type of response the work needs to show the correct steps and a valid process where the error can be determined.

An incorrect value is provided ($2 \frac{1}{10}$). This is the result of a calculation error; $\frac{3}{5} - \frac{3}{4} = -\frac{1}{10}$, not $\frac{1}{10}$. 
Part B: Score Point 1

Part C: Score Point 1

Jackie wrote the expression shown.
\[ \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} ÷ \frac{1}{4} \]

Part A

Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{4} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{2}{3} + \frac{1}{2} \)
- D. \( \frac{3}{5} + \frac{1}{4} \)

Part B

Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} ÷ \frac{1}{4} \)

Step 2: \( -\frac{1}{20} + \frac{1}{2} ÷ \frac{1}{4} \)

Step 3: \( -\frac{1}{20} + \frac{1}{4} \)

Step 4: \( \frac{1}{40} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided.

When Jackie was doing step 3, she didn’t use the phrase keep change flip for \( \frac{1}{2} ÷ \left( \frac{1}{4} \right) \), so she got \( \frac{1}{8} \) instead of 2 for the answer.

Part C

Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\[ \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} ÷ \left( \frac{1}{4} \right) \]
\[ \frac{2}{3} \left( -\frac{15}{20} \right) + \frac{1}{2} ÷ \left( \frac{1}{4} \right) \]
\[ -\frac{1}{10} + \frac{1}{2} ÷ \left( \frac{1}{4} \right) \]
\[ -\frac{1}{10} + 2 \]
\[ -1 \frac{1}{10} \]
Anchor Paper 4
Part B: Score Point 1

This response receives full credit. It includes the required element:

- A correct description of the error made in finding the value of the expression is given (she didn’t use the phrase keep change flip for \( \frac{1}{2} \div \left( \frac{1}{4} \right) \), so she got \( \frac{1}{8} \) instead of 2).

Note: Wording of “keep change flip” is referencing the reciprocal and is the correct process for dividing two fractions; Keep the first fraction, change the division to multiplication and flip the second fraction - reciprocal. This explanation is acceptable in this item.

Part C: Score Point 1

This response receives partial credit. It includes one of the two required elements:

- Supporting work is shown that could determine the value of the expression \(-\frac{1}{10} + 2\). This expression shows the correct work was done for the left side of the expression \( \frac{2}{3} \left( -\frac{3}{20} \right) = -\frac{1}{10} \) and for the right side of the expression \( \frac{1}{2} \div \frac{1}{4} = 2 \). The process is complete and correct.

An incorrect value is provided \(-1 \frac{1}{10}\). This is the result of a calculation error in the last step; \(-\frac{1}{10} + 2 = 1 \frac{9}{10} \) not \(-1 \frac{1}{10}\).
Part A

Which computation can be performed first to determine the correct value of this expression?

○ A. \( \frac{2}{3} + \frac{3}{5} \)

○ B. \( \frac{2}{3} - \frac{3}{4} \)

○ C. \( \frac{3}{4} + \frac{1}{2} \)

○ D. \( -\frac{3}{4} + \frac{1}{2} \)

Part B

Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4} \)

Step 2: \(-\frac{1}{18} + \frac{1}{2} \div \frac{1}{4} \)

Step 3: \(-\frac{1}{18} + \frac{1}{2} \)

Step 4: \(\frac{1}{40} \)

Describe the error that Jackie made:

Enter your description of the error in the space provided.

Jackie forgot to do the reciprocal of \( \frac{1}{4} \). When you divide, you are supposed to keep the first number, change the division sign to multiplication, and flip the fraction, which is the reciprocal.

Part C

Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\(2\frac{2}{3} \) because ...of doing the order of operation.
Anchor Paper 5
Part B: Score Point 1

This response receives full credit. It includes the required element:

- A correct description of the error made in finding the value of the expression is given (Jackie forgot to do the reciprocal of $\frac{1}{4}$). OR (When you divide, you are supposed to keep the first number, change the division sign to multiplication, and flip the fraction, which is the reciprocal). Note that either sentence would earn credit for the element by itself.

Part C: Score Point 0

This response receives no credit. It includes none of the required elements:

An incorrect value is provided ($2 \frac{3}{5}$).

An insufficient explanation to determine the answer is shown (because . . . of doing the order of operation). Although this statement is true, it is not sufficient; numeric support would be needed.
Part B: Score Point 0
Part C: Score Point 1

Part A
Which computation can be performed first to determine the correct value of this expression?

○ A. $\frac{2}{3} + \frac{3}{4}$

○ B. $\frac{2}{5} - \frac{3}{4}$

○ C. $\frac{3}{4} + \frac{1}{2}$

○ D. $-\frac{3}{4} + \frac{1}{2}$

Part B
Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

Step 1: \[\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}\]
Step 2: \[-\frac{1}{10} + \frac{1}{2} \div \frac{1}{4}\]
Step 3: \[-\frac{1}{10} + \frac{1}{8}\]
Step 4: $\frac{1}{10}$

Describe the error that Jackie made.

Enter your description of the error in the space provided:

\[-1 + 1 = 0\]
\[-1 + 1 \neq 1\]

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\[\frac{2}{3} \left( \frac{\frac{3}{5} - \frac{3}{4}}{\frac{2}{5} + \frac{\frac{-3}{20} + \frac{1}{2} \div \left( \frac{1}{4} \right)}{\frac{6}{20} + \frac{1}{2} \div \left( \frac{1}{4} \right)}}\right)\]
\[\frac{-6}{60} + \frac{1}{2} \div \left( \frac{1}{4} \right)\]
\[1 \frac{99}{100}\]
Part B: Score Point 0

This response receives no credit. It does not include the required element:

The work shown is incorrect. It may be trying to indicate the numerators in Step 3 were added incorrectly but there are no labels or indications of what the numbers represent (1 + 1 = 0, -1 + 1 ≠ 1).

Part C: Score Point 1

This response receives partial credit. It includes one of the two required elements:

- Supporting work is shown that could determine the value of the expression ($\frac{-6}{60} + 2$). The work shown is correct; $-\frac{6}{60}$ is equivalent to $-\frac{1}{10}$.

An incorrect value is provided (1 $\frac{99}{100}$). This is the result of a calculation error in the last step; $\frac{-6}{60} + 2 = 1 \frac{9}{10}$ not $1 \frac{99}{100}$. 
Part A
Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{5} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{3}{4} + \frac{1}{12} \)
- D. \( -\frac{3}{2} + \frac{1}{3} \)

Part B
Jackie made an error when trying to determine the value of the expression.
Here are the steps she used:

1. \( \frac{2}{3} \left( \frac{\frac{3}{5} - \frac{3}{4}}{1} \right) + \frac{1}{2} \div \frac{1}{4} \)
2. \( \frac{2}{3} \left( \frac{\frac{3}{5} - \frac{3}{4}}{1} \right) + \frac{1}{2} \div \frac{1}{4} \)
3. \( \frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)
4. \( \frac{1}{10} + \frac{1}{8} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided:

The error she made was she didn’t add the numbers in the parentheses correctly.

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided:

\[
\frac{2}{3} \left( \frac{\frac{3}{5} - \frac{3}{4}}{1} \right) + \frac{1}{2} \div \frac{1}{4} \]
\[
\frac{2}{3} \left( 0 \right) + \frac{1}{2} \div \frac{1}{4} \]
\[
\frac{2}{3} + 1 \frac{1}{3} \]

Answer is 2
Part B: Score Point 0

This response receives no credit. It does not include the required element:

The explanation of the error is incorrect (The error she made was she didn’t add the numbers in the parentheses correctly). The numbers in the parentheses were added correctly. The error is on the right side of the expression; $\frac{1}{2} ÷ \frac{1}{4} \neq \frac{1}{8}$.

Part C: Score Point 0

This response receives no credit. It includes none of the required elements:

An incorrect value is provided (2).

Incorrect work to determine the answer is shown $\left[ \frac{2}{3} \left(0\right) + \frac{1}{2} ÷ (\frac{1}{4}), \frac{2}{3} + 1 \frac{1}{3} \right]$. There is no valid process shown and neither side of the expression is calculated correctly.

Note: for this element we are looking for $-\frac{1}{10}$ as evidence that the left side of the expression was calculated correctly and 2 as evidence that the right side of the expression was calculated correctly.
Part A

Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{5} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{3}{4} + \frac{1}{2} \)
- D. \( -\frac{3}{4} + \frac{1}{2} \)

Part B

Jackie made an error when trying to determine the value of the expression.

Here are the steps she used.

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4} \)

Step 2: \( -\frac{1}{10} + \frac{3}{5} \div \frac{1}{4} \)

Step 3: \( -\frac{1}{10} + \frac{1}{8} \)

Step 4: \( \frac{1}{40} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided.

\[
\frac{1}{2} + \frac{1}{8}
\]

Part C

Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\[
\frac{1}{2} \times \frac{1}{8} = \frac{1}{16}
\]
<table>
<thead>
<tr>
<th>Annotation</th>
</tr>
</thead>
</table>
| **Anchor Paper 8**  
**Part B: Score Point 0** |

This response receives no credit. It does not include the required element:

The explanation of the error is incorrect $(1/2 + 1/8)$. This addition is not stated in the provided steps and is not the error made.

| **Part C: Score Point 0** |

This response receives no credit. It includes none of the required elements:

An incorrect value is provided $(1/16)$.

Incorrect work to determine the answer is shown $(1/2 \times 1/8)$. There is no valid process shown and neither side of the expression is calculated correctly.
Practice Set
P1 - P5

No Annotations Included
Jackie wrote the expression shown.
\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

**Part A**
Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} - \frac{3}{5} \)
- B. \( \frac{2}{3} - \frac{3}{2} \)
- C. \( \frac{2}{4} - \frac{1}{2} \)
- D. \( -\frac{2}{4} + \frac{1}{2} \)

**Part B**
Jackie made an error when trying to determine the value of the expression.

Here are the steps she used:

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4} \)

Step 2: \( -\frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)

Step 3: \( -\frac{1}{10} + \frac{1}{2} \)

Step 4: \(-\frac{1}{10}

Describe the error that Jackie made.

Enter your description of the error in the space provided.

**Part C**
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

After kcf I got the answer as 2. The third step would then be \(-\frac{1}{10} + 2\). Step 4’s answer would be \(3\frac{9}{10}\).
Jackie wrote the expression shown.

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

**Part A**

Which computation can be performed first to determine the correct value of this expression?

- **A.** \( \frac{2}{3} + \frac{3}{5} \)
- **B.** \( \frac{3}{5} - \frac{3}{4} \)
- **C.** \( \frac{2}{3} + \frac{1}{2} \)
- **D.** \( -\frac{3}{5} + \frac{1}{4} \)

**Part B**

Jackie made an error when trying to determine the value of the expression.

Here are the steps she used.

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}
\]

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) \)

Step 2: \( \frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)

Step 3: \( -\frac{1}{10} + \frac{1}{4} \)

Step 4: \( \frac{1}{20} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided.

**Part C**

Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

**Step 1**

\[
\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \left( \frac{1}{4} \right)
\]

**Step 2**

\[
\frac{2}{3} \times \frac{3}{20} + \frac{1}{2} \div \left( \frac{1}{4} \right)
\]

**Step 3**

\[
-\frac{1}{10} + \frac{1}{2} \div \left( \frac{1}{4} \right)
\]

**Step 4**

\[
\frac{1}{10} + 2 = 1.9
\]
Jackie wrote the expression shown.

\[ \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4} \]

**Part A**
Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{5} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{2}{4} + \frac{1}{2} \)
- D. \( - \frac{3}{4} + \frac{1}{2} \)

**Part B**
Jackie made an error when trying to determine the value of the expression.
Here are the steps she used:

Step 1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4} \)

Step 2: \( \frac{2}{3} \left( \frac{20}{20} \right) + \frac{1}{2} \div \frac{1}{4} \)

Step 3: \( \frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)

Step 4: \( \frac{1}{20} \)

Describe the error that Jackie made.

Enter your description of the error in the space provided.

Jackie made the mistake when she was dividing the fractions, Jackie ended up multiplying them instead of multiplying by the reciprocal.

**Part C**
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

\[ \frac{2}{3} \left( - \frac{3}{20} \right) + \frac{1}{2} \div \left( \frac{1}{4} \right) \]

\[ - \frac{1}{10} + \frac{1}{2} \div \left( \frac{1}{4} \right) \]

\[ - \frac{1}{10} + 2 \]

2.9
Jackie wrote the expression shown.

$$\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}$$

Part A
Which computation can be performed first to determine the correct value of this expression?

- A. $$\frac{2}{3} + \frac{3}{5}$$
- B. $$\frac{3}{5} - \frac{3}{4}$$
- C. $$\frac{3}{4} + \frac{1}{2}$$
- D. $$\frac{3}{4} + \frac{1}{2}$$

Part B
Jackie made an error when trying to determine the value of the expression. Here are the steps she used.

Step 1: $$\frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} \div \frac{1}{4}$$
Step 2: $$- \frac{1}{10} + \frac{1}{2} \div \frac{1}{4}$$
Step 3: $$- \frac{1}{10} + \frac{1}{8}$$
Step 4: $$\frac{1}{20}$$

Describe the error that Jackie made.

Enter your description of the error in the space provided.

he added the $$- \frac{3}{20}$$ before dividing.

Part C
Determine the correct value of the expression. Be sure to show all of the steps you used.

Enter your answer and your work in the space provided.

$$\frac{9}{10}$$
Part A

Which computation can be performed first to determine the correct value of this expression?

- A. \( \frac{2}{3} + \frac{3}{5} \)
- B. \( \frac{3}{5} - \frac{3}{4} \)
- C. \( \frac{2}{4} + \frac{1}{2} \)
- D. \( -\frac{3}{4} + \frac{1}{2} \)

Part B

Jackie made an error when trying to determine the value of the expression.

Here are the steps she used.

- Step 1: \( \frac{2}{3} \left( \frac{3}{5} \right) + \frac{1}{2} + \frac{1}{4} \)
- Step 2: \( \frac{2}{3} \left( -\frac{3}{20} \right) + \frac{1}{2} + \frac{1}{4} \)
- Step 3: \( -\frac{1}{10} + \frac{1}{2} + \frac{1}{4} \)
- Step 4: \( \frac{1}{4} \)

Describe the error that Jackie made.

Jakie’s error was that she divided one half and one forth wrong. She did not use the reciprocal of one forth on her math. The answer should have been 2 instead of \( \frac{1}{3} \).

Part C

Determine the correct value of the expression. Be sure to show all of the steps you used.

step1: \( \frac{2}{3} \left( \frac{3}{5} - \frac{3}{4} \right) + \frac{1}{2} + \frac{1}{4} \)  
step 2: \( \frac{2}{3} \left( -\frac{3}{20} \right) + \frac{1}{2} : \left( \frac{1}{4} \right) \)  
step 3: \( -\frac{1}{10} + \frac{1}{2} \div \frac{1}{4} \)  
step 4: \( -\frac{1}{10} + 2 \)  
step 5: 1.9
## Practice Set

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