

Lesson Objective: Students will be able to:

- check their answers to problems and ask themselves, "Does this make sense?"
- identify their approach to solving complex problems

Warm Up

Find the value of each expression in lowest terms.

1. $\frac{3}{14} - \frac{1}{14}$

5. $\frac{9}{11} - \frac{6}{11}$

9. $\frac{9}{14} - \frac{9}{14}$

2. $\frac{11}{12} - \frac{5}{12}$

6. $\frac{7}{10} - \frac{7}{10}$

10. $\frac{2}{3} - \frac{1}{3}$

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Warm Up Answers

Find the value of each expression in lowest terms.

$$1. \frac{3}{14} - \frac{1}{14} \\ = \frac{1}{7}$$

$$5. \frac{9}{11} - \frac{6}{11} \\ = \frac{3}{11}$$

$$9. \frac{9}{14} - \frac{9}{14} \\ = 0$$

$$2. \frac{11}{12} - \frac{5}{12} \\ = \frac{1}{2}$$

$$6. \frac{7}{10} - \frac{7}{10} \\ = 0$$

$$10. \frac{2}{3} - \frac{1}{3} \\ = \frac{1}{3}$$

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Homework Answers

2.1 Record and Practice Journal

Multiply. Write the answer in simplest form.

1. $\frac{1}{6} \times \frac{5}{8}$
 $\frac{5}{48}$

2. $\frac{7}{9} \times 3$
 $2\frac{1}{3}$

3. $\frac{8}{9} \times \frac{3}{5}$
 $\frac{8}{15}$

4. $\frac{7}{8} \times 2\frac{1}{3}$
 $2\frac{1}{24}$

5. $7 \times 3\frac{9}{14}$
 $25\frac{1}{2}$

6. $5\frac{5}{9} \times 2\frac{7}{10}$
 15

7. You reserve $\frac{2}{5}$ of the seats on a tour bus. You are able to fill $\frac{5}{8}$ of the seats you reserve. What fraction of the seats on the bus are you able to fill?

$\frac{1}{4}$

8. A triangle has a base of $5\frac{2}{3}$ inches and a height of 3 inches. What is the area of the triangle?

$8\frac{1}{2} \text{ in.}^2$

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Self-Evaluation Scale

Score	Description
4	<p>I can teach other students how to:</p> <ul style="list-style-type: none">• check their answers to problems and ask themselves, "Does this make sense?"• identify their approach to solving complex problems
3	<p>I can:</p> <ul style="list-style-type: none">• check their answers to problems and ask themselves, "Does this make sense?"• identify their approach to solving complex problems
2	<p>I recognize, but still need help to:</p> <ul style="list-style-type: none">• check their answers to problems and ask themselves, "Does this make sense?"• identify their approach to solving complex problems
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$$5\frac{2}{3} - 1\frac{1}{3}$$

$$3\frac{1}{11} - 1\frac{1}{6}$$

$$4\frac{7}{9} - 3\frac{4}{7}$$

$$9\frac{2}{3} - 3\frac{1}{3}$$

$$3\frac{1}{5} - 1\frac{1}{6}$$

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$$5\frac{2}{3} - 1\frac{1}{3} \\ = \frac{13}{3} = 4\frac{1}{3}$$

$$3\frac{1}{11} - 1\frac{1}{6} \\ = \frac{127}{66} = 1\frac{61}{66}$$

$$4\frac{7}{9} - 3\frac{4}{7} \\ = \frac{76}{63} = 1\frac{13}{63}$$

$$9\frac{2}{3} - 3\frac{1}{3} \\ = \frac{19}{3} = 6\frac{1}{3}$$

$$3\frac{1}{5} - 1\frac{1}{6} \\ = \frac{61}{30} = 2\frac{1}{30}$$

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First attempt:

Points: ____/2 attempt ____/2 explanation

What did you learn from this attempt? How will your strategy change on your next attempt?

Second attempt:

Points: ____/2 attempt ____/2 explanation

What did you learn from this attempt? How will your strategy change on your next attempt?

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Group 1

By filling in the boxes with whole numbers 1 - 9, how many unique ways can you make the difference?

The image shows a subtraction problem where the numbers and fraction bars are represented by dot-matrix patterns. The first number is a 3x4 grid of dots forming the digit '4'. This is followed by a fraction bar (a horizontal line of dots) and a 2x2 grid of dots forming the digit '3'. This is followed by a minus sign (a horizontal line of dots) and another 3x4 grid of dots forming the digit '4'. This is followed by another fraction bar (a horizontal line of dots) and a 2x2 grid of dots forming the digit '3'. To the right of this is an equals sign (two horizontal lines of dots) followed by a large '1' (a vertical line of dots) and a fraction bar (a horizontal line of dots) with a '3' (a vertical line of dots) above it and a '5' (a vertical line of dots) below it.

$$4 \frac{3}{4} - 4 \frac{3}{4} = 1 \frac{3}{5}$$

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Group 2

By filling in the boxes with whole numbers 1 - 9, how many unique ways can you make the difference?

The image shows a subtraction problem where each digit is represented by a 2x2 grid of dots. The first fraction has a numerator with four empty boxes and a denominator with four empty boxes. The second fraction also has a numerator with four empty boxes and a denominator with four empty boxes. The result is the mixed number 5 and 1/2.

$$\frac{\begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array}}{\begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array}} - \frac{\begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array}}{\begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array}} = 5\frac{1}{2}$$

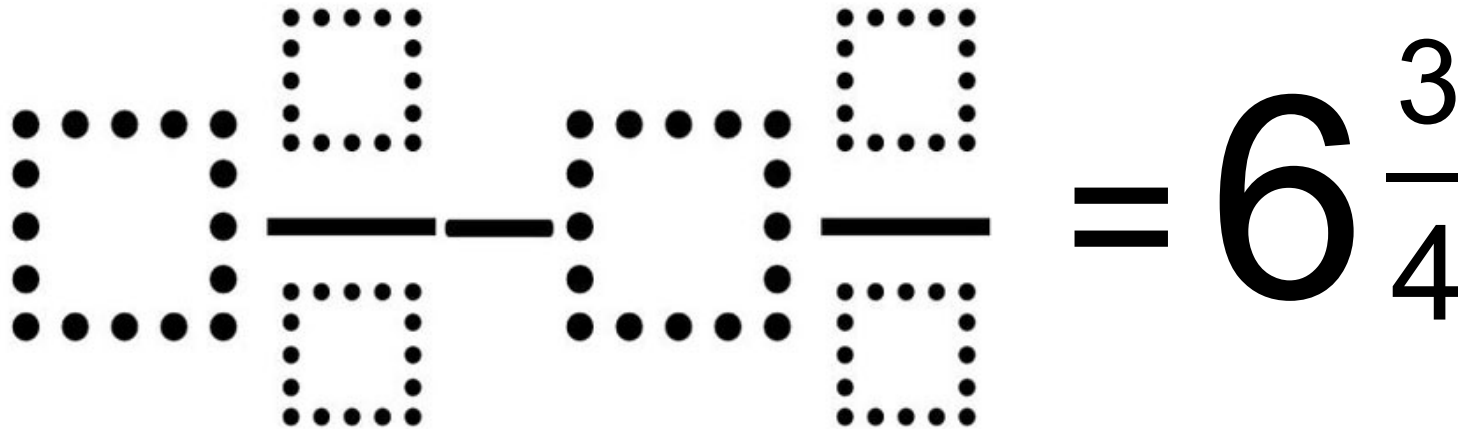
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Group 3

By filling in the boxes with whole numbers 1 - 9, how many unique ways can you make the difference?


$$\begin{array}{|c|c|} \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \end{array} - \begin{array}{|c|c|} \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \cdot & \cdot \\ \hline \end{array} = 6 \frac{3}{4}$$

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Group 4

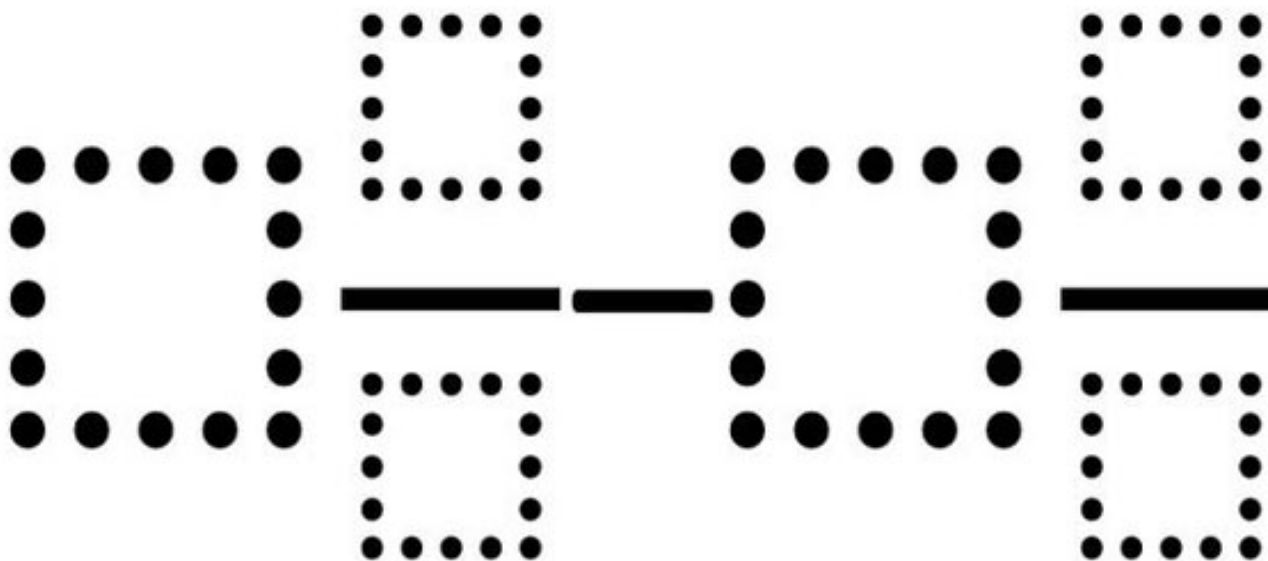
By filling in the boxes with whole numbers 1 - 9, how many unique ways can you make the difference?

$$\begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array} - \begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array} = \begin{array}{|c|c|c|c|} \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \cdot & \cdot & \cdot & \cdot \\ \hline \end{array}$$

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Make the smallest, or largest, difference by filling in the boxes with whole numbers 1 - 9.



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Homework

Make the largest, or smallest, value of the expression by filling in the boxes with whole numbers 1 - 9.

$$\square \div \square (\square + \square)^{\square} \cdot \square - \square$$

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