



Additional Guided Practice

7th Grade Readiness Standards

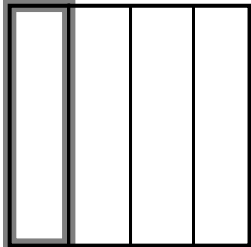
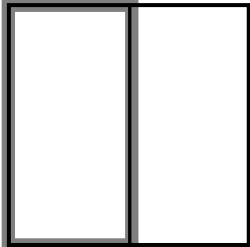
6.NS.1, 6.EE.2c, 6.EE.4, 6.EE.7

- Intended Purpose
 - To help students **strengthen and maintain conceptual understanding** using visual representations of mathematical ideas
- Suggestions for use:
 - **Distributed/spaced practice** between readiness screenings
 - **Revisit an intervention** after taking a short break with students who demonstrate some conceptual understanding by coming close to the learning goal on their Growth Chart
- Instructional Design:
 - Approximately **5 to 15 minutes** per session
 - **Forms A, B and C** are available for each readiness standard
 - Begin with the teacher/interventionist leading a **“We Do Together”** problem
 - The middle provides time for students to **reflect** and ask questions about the learning target
 - End with students taking turns leading to solve the **“You Do Together”** problems
- Solutions for Form A Guided Practice are included at the end of this document:
 - Drawing guides were used to construct each math drawing
 - Students who struggle with kinesthetic movement and spatial organization many benefit from using drawing guides to construct math drawings
 - Drawing guides are available with Delta Math intervention kits at www.deltamath.org

Learning Target: I will multiply and divide fractions

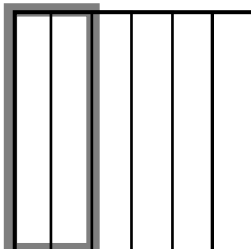
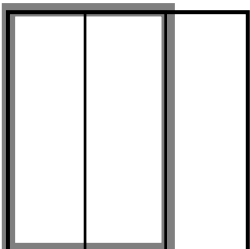
7th Grade - Readiness Standard 1 - 6.NS.1 - Form A

1. We Do Together: Label, multiply, divide and think multiply to divide.

<p>Draw 1-half of 1-fourth of the whole</p> <div style="text-align: center; margin: 20px 0;">  </div> <div style="text-align: center;"> $\frac{1}{4}$ </div>	<p>Draw to find how many <u>1-fourths</u> are in 1-half</p> <div style="text-align: center; margin: 20px 0;">  </div> <div style="text-align: center;"> $\frac{1}{2}$ </div>
<p>Multiply to find the size of each fractional part</p> <div style="text-align: center; margin: 20px 0;"> $\frac{1}{2} \times \frac{1}{4} =$ </div>	<p>Write the number of groups and think multiply to divide</p> <div style="text-align: center; margin: 20px 0;"> $\frac{1}{2} \div \frac{1}{4} =$ $\frac{1}{2} \times \frac{4}{1} =$ </div>

2. Reflect: What questions do you have about multiplying and dividing fractions?

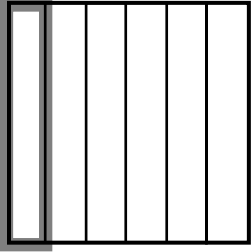
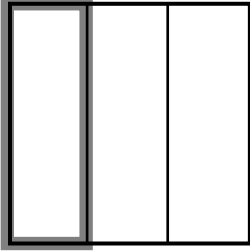
3. You Do Together: Label, multiply, divide and think multiply to divide.

<p>Draw 2-thirds of 2-sixths of the whole</p> <div style="text-align: center; margin: 20px 0;">  </div> <div style="text-align: center;"> $\frac{2}{6}$ </div>	<p>Draw to find how many <u>2-sixths</u> are in 2-thirds</p> <div style="text-align: center; margin: 20px 0;">  </div> <div style="text-align: center;"> $\frac{2}{3}$ </div>
<p>Multiply to find the size of each fractional part</p> <div style="text-align: center; margin: 20px 0;"> $\frac{2}{3} \times \frac{2}{6} =$ </div>	<p>Write the number of groups and think multiply to divide</p> <div style="text-align: center; margin: 20px 0;"> $\frac{2}{3} \div \frac{2}{6} =$ $\frac{2}{3} \times \frac{6}{2} =$ </div>

Learning Target: I will multiply and divide fractions

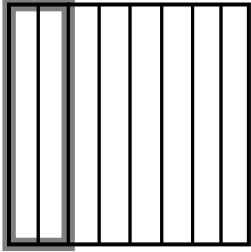
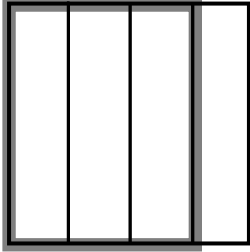
7th Grade - Readiness Standard 1 - 6.NS.1 - Form B

1. We Do Together: Label, multiply, divide and think multiply to divide.

<p>Draw 1-third of 1-sixth of the whole</p>  <p style="text-align: center;">$\frac{1}{6}$</p>	<p>Draw to find how many <u>1-sixths</u> are in 1-third</p>  <p style="text-align: center;">$\frac{1}{3}$</p>
<p>Multiply to find the size of each fractional part</p> $\frac{1}{3} \times \frac{1}{6} =$	<p>Write the number of groups and think multiply to divide</p> $\frac{1}{3} \div \frac{1}{6} = \quad \frac{1}{3} \times \frac{6}{1} =$

2. Reflect: What questions do you have about multiplying and dividing fractions?

3. You Do Together: Label, multiply, divide and think multiply to divide.

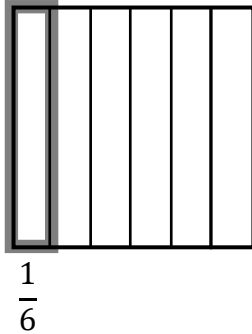
<p>Draw 3-fourths of 2-eighths of the whole</p>  <p style="text-align: center;">$\frac{2}{8}$</p>	<p>Draw to find how many <u>2-eighths</u> are in 3-fourths</p>  <p style="text-align: center;">$\frac{3}{4}$</p>
<p>Multiply to find the size of each fractional part</p> $\frac{3}{4} \times \frac{2}{8} =$	<p>Write the number of groups and think multiply to divide</p> $\frac{3}{4} \div \frac{2}{8} = \quad \frac{3}{4} \times \frac{8}{2} =$

Learning Target: I will multiply and divide fractions

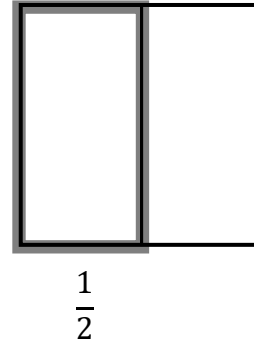
7th Grade - Readiness Standard 1 - 6.NS.1 - Form C

1. We Do Together: Label, multiply, divide and think multiply to divide.

Draw 1-half of 1-sixth of the whole



Draw to find how many 1-sixths are in 1-half



Multiply to find the size of each fractional part

$$\frac{1}{2} \times \frac{1}{6} =$$

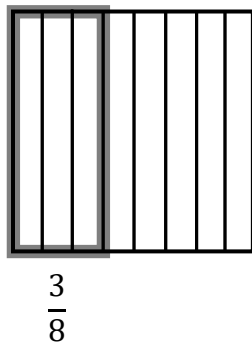
Write the number of groups and think multiply to divide

$$\frac{1}{2} \div \frac{1}{6} = \quad \frac{1}{2} \times \frac{6}{1} =$$

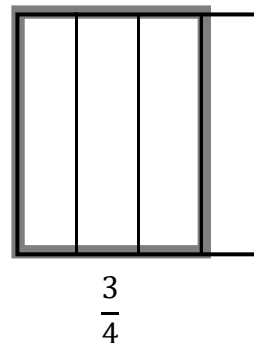
2. Reflect: What questions do you have about multiplying and dividing fractions?

3. You Do Together: Label, multiply, divide and think multiply to divide.

Draw 3-fourths of 3-eighths of the whole



Draw to find how many 3-eighths are in 3-fourths



Multiply to find the size of each fractional part

$$\frac{3}{4} \times \frac{3}{8} =$$

Write the number of groups and think multiply to divide

$$\frac{3}{4} \div \frac{3}{8} = \quad \frac{3}{4} \times \frac{8}{3} =$$

Learning Target: I will evaluate algebraic expressions

7th Grade - Readiness Standard 4 - 6.EE.2c - Form A

1. We Do Together: Draw, tell and show.

<p>Draw each x as 4 plus signs to evaluate $3x + 2$ when $x = 4$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="margin: 0 10px;">+ +</div> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border-left: 2px solid black; border-right: 2px solid black; height: 40px;"></div> </div> </div> <p style="text-align: center; margin-top: 5px;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <p style="margin-top: 20px;">$3x + 2$ when $x = 4$</p> <p>$3(\underline{\hspace{1cm}}) + 2$</p> <p>$\underline{\hspace{1cm}} + 2$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of the 3 x's</p> <p style="text-align: center; margin-top: 20px;">$x + x + x = 3x = 3(\underline{\hspace{1cm}}) = \underline{\hspace{1cm}}$</p>	

2. Reflect: What questions do you have about evaluating algebraic expressions?

3. You Do Together: Draw, tell and show.

<p>Draw each x as 5 plus signs to evaluate $2x + 4$ when $x = 5$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="margin: 0 10px;">+ + +</div> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border-left: 2px solid black; border-right: 2px solid black; height: 40px;"></div> </div> </div> <p style="text-align: center; margin-top: 5px;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <p style="margin-top: 20px;">$2x + 3$ when $x = 5$</p> <p>$2(\underline{\hspace{1cm}}) + 3$</p> <p>$\underline{\hspace{1cm}} + 3$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of the 2 x's</p> <p style="text-align: center; margin-top: 20px;">$x + x = 2x = 2(\underline{\hspace{1cm}}) = \underline{\hspace{1cm}}$</p>	

<p>Draw the x^2 as a 3 by 3 array of plus signs to evaluate $x^2 + 5$ when $x = 3$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="border: 1px solid black; padding: 10px; text-align: center; margin-right: 10px;">$+x^2$</div> <div style="margin: 0 10px;">+ + + + +</div> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border-left: 2px solid black; border-right: 2px solid black; height: 40px;"></div> </div> </div> <p style="text-align: center; margin-top: 5px;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <p style="margin-top: 20px;">$x^2 + 5$ when $x = 3$</p> <p>$(\underline{\hspace{1cm}})^2 + 5$</p> <p>$\underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} + 5$</p> <p>$\underline{\hspace{1cm}} + 5$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of x^2</p> <p style="text-align: center; margin-top: 20px;">$x^2 = x \cdot x = \underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$</p>	

Learning Target: I will evaluate algebraic expressions

7th Grade - Readiness Standard 4 - 6.EE.2c - Form B

1. We Do Together: Draw, tell and show.

<p>Draw each x as 3 plus signs to evaluate $5x + 4$ when $x = 3$.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="margin: 0 10px;">+ + + +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin-right: 5px;"></div> <div style="text-align: center;"> <p>is equal to</p> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$5x + 4$ when $x = 3$</p> <p>$5(\underline{\quad}) + 4$</p> <p>$\underline{\quad} + 4$</p> <p>$\underline{\quad}$</p>
<p>Tell the value of the 5 x's</p> <p style="text-align: center;">$x + x + x + x + x = 5x = 5(\underline{\quad}) = \underline{\quad}$</p>	

2. Reflect: What questions do you have about evaluating algebraic expressions?

3. You Do Together: Draw, tell and show.

<p>Draw each x as 2 plus signs to evaluate $3x + 5$ when $x = 2$.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="margin: 0 10px;">+ + + + +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin-right: 5px;"></div> <div style="text-align: center;"> <p>is equal to</p> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$3x + 5$ when $x = 2$</p> <p>$3(\underline{\quad}) + 2$</p> <p>$\underline{\quad} + 2$</p> <p>$\underline{\quad}$</p>
<p>Tell the value of the 3 x's</p> <p style="text-align: center;">$x + x + x = 3x = 3(\underline{\quad}) = \underline{\quad}$</p>	
<p>Draw the x^2 as a 4 by 4 array of plus signs to evaluate $x^2 + 3$ when $x = 4$.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$+x^2$</div> </div> <div style="margin: 0 10px;">+ + +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin-right: 5px;"></div> <div style="text-align: center;"> <p>is equal to</p> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$x^2 + 3$ when $x = 4$</p> <p>$(\underline{\quad})^2 + 3$</p> <p>$\underline{\quad} \cdot \underline{\quad} + 3$</p> <p>$\underline{\quad} + 3$</p> <p>$\underline{\quad}$</p>
<p>Tell the value of x^2</p> <p style="text-align: center;">$x^2 = x \cdot x = \underline{\quad} \cdot \underline{\quad} = \underline{\quad}$</p>	

Learning Target: I will evaluate algebraic expressions

7th Grade - Readiness Standard 4 - 6.EE.2c - Form C

1. We Do Together: Draw, tell and show.

<p>Draw each x as 5 plus signs to evaluate $4x + 3$ when $x = 5$.</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="display: flex; align-items: center; gap: 10px;"> <div>+</div> <div>+</div> <div>+</div> </div> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border-left: 3px double black; height: 100px;"></div> <div style="text-align: center;"> <div style="border-left: 3px double black; height: 100px;"></div> <div>is equal to</div> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$4x + 3$ when $x = 5$</p> <p>$4(\underline{\hspace{1cm}}) + 3$</p> <p>$\underline{\hspace{1cm}} + 3$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of the 4 x's</p> <p style="text-align: center;">$x + x + x + x = 4x = 4(\underline{\hspace{1cm}}) = \underline{\hspace{1cm}}$</p>	

2. Reflect: What questions do you have about evaluating algebraic expressions?

3. You Do Together: Draw, tell and show.

<p>Draw each x as 3 plus signs to evaluate $5x + 2$ when $x = 3$.</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 2px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> <div style="display: flex; align-items: center; gap: 10px;"> <div>+</div> <div>+</div> </div> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border-left: 3px double black; height: 100px;"></div> <div style="text-align: center;"> <div style="border-left: 3px double black; height: 100px;"></div> <div>is equal to</div> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$5x + 2$ when $x = 3$</p> <p>$5(\underline{\hspace{1cm}}) + 2$</p> <p>$\underline{\hspace{1cm}} + 2$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of the 5 x's</p> <p style="text-align: center;">$x + x + x + x + x = 5x = 5(\underline{\hspace{1cm}}) = \underline{\hspace{1cm}}$</p>	
<p>Draw the x^2 as a 3 by 3 array of plus signs to evaluate $x^2 + 5$ when $x = 5$.</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"> $+x^2$ </div> <div>+</div> </div> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border-left: 3px double black; height: 100px;"></div> <div style="text-align: center;"> <div style="border-left: 3px double black; height: 100px;"></div> <div>is equal to</div> </div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <p>$x^2 + 1$ when $x = 5$</p> <p>$(\underline{\hspace{1cm}})^2 + 1$</p> <p>$\underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} + 1$</p> <p>$\underline{\hspace{1cm}} + 1$</p> <p>$\underline{\hspace{1cm}}$</p>
<p>Tell the value of x^2</p> <p style="text-align: center;">$x^2 = x \cdot x = \underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$</p>	

Learning Target: I will simplify algebraic expressions

7th Grade - Readiness Standard 5 - 6.EE.4 - Form A

1. We Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div></div> </div>

2. Reflect: What questions do you have about simplifying algebraic expressions?

3. You Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x²</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div></div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div></div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div></div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div></div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div></div> </div>
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Learning Target: I will simplify algebraic expressions

7th Grade - Readiness Standard 5 - 6.EE.4 - Form B

1. We Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div>	<p>Draw the equivalent simplified algebraic expression</p>
<p>Identify the like terms</p> $3x + 2 + x$	<p>Write the equivalent simplified algebraic expression</p>

2. Reflect: What questions do you have about simplifying algebraic expressions?

3. You Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x²</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x²</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x²</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div>	<p>Draw the equivalent simplified algebraic expression</p>
<p>Identify the like terms</p> $2x^2 + x + 4 + 3x - 1$	<p>Write the equivalent simplified algebraic expression</p>
<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> </div> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">+x</div> </div>	<p>Draw the equivalent simplified algebraic expression</p>
<p>Identify the like terms</p> $2(x + 3) + 4x + 2$ <p style="text-align: center;">or</p> $2x + 6 + 4x + 2$	<p>Write the equivalent simplified algebraic expression</p>

Learning Target: I will simplify algebraic expressions

7th Grade - Readiness Standard 5 - 6.EE.4 - Form C

1. We Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div></div> <div>+</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div>

2. Reflect: What questions do you have about simplifying algebraic expressions?

3. You Do Together: Say, identify, draw, and write.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> <div></div> <div style="border: 1px solid black; padding: 2px 5px;">+x²</div> <div style="border: 1px solid black; padding: 2px 5px; text-align: center;"> + + + </div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div>

Learning Target: I will solve 1-step equations

7th Grade - Readiness Standard 6 - 6.EE.7 - Form A

1. We Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+x</div> <div style="margin-right: 5px;">+</div> <div style="margin-right: 5px;">+</div> <div style="margin-right: 5px;">+</div> </div> <div style="border-left: 3px double black; height: 60px; margin: 0 10px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">+++++</div> <div style="margin-bottom: 5px;">+++++</div> <div>++</div> </div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">3</div> </div> <div style="border: 1px solid black; padding: 2px 20px; margin-top: 5px; text-align: center;">12</div> <p style="text-align: center; margin-top: 10px;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $x + 3 = 12$ </div>
<p>Draw two ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	

2. Reflect: What questions do you have about solving 1-step equations?

3. You Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">+++++</div> <div>+++++</div> </div> <div style="border-left: 3px double black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px;">+x</div> </div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">x</div> </div> <div style="border: 1px solid black; padding: 2px 20px; margin-top: 5px; text-align: center;">10</div> <p style="text-align: center; margin-top: 10px;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $10 = 5x$ </div>
<p>Draw two ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin-top: 20px;"> <div style="margin-bottom: 5px;">← 8 →</div> <div style="display: flex; border: 1px solid black; width: 150px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; padding: 2px 20px; margin-top: 5px; text-align: center;">x</div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $8 = \frac{2}{5}x$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin-top: 20px;"> <div style="display: flex; border: 1px solid black; width: 60px; height: 20px; margin: 0 auto;"></div> <div style="display: flex; border: 1px solid black; width: 100px; height: 20px; margin-top: 5px;"></div> <div style="margin-top: 5px;">← 1 →</div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $3x = \frac{1}{2}$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	

Learning Target: I will solve 1-step equations

7th Grade - Readiness Standard 6 - 6.EE.7 - Form B

1. We Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">$+x$</div> <div style="display: flex; gap: 5px;"> ++++ </div> </div> <div style="border-left: 2px solid black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; align-items: center;"> <div style="display: flex; gap: 5px;"> ++++++++ </div> <div style="display: flex; gap: 5px;"> ++++++ </div> </div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; gap: 10px;"> x 4 </div> <div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">10</div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $x + 4 = 10$ </div>
<p>Draw two ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	

2. Reflect: What questions do you have about solving 1-step equations?

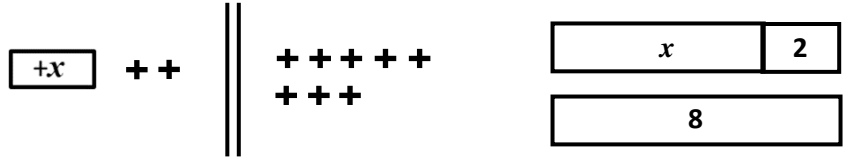
3. You Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <div style="display: flex; align-items: center;"> <div style="display: flex; gap: 5px;"> ++++++++ </div> <div style="display: flex; gap: 5px;"> ++++ </div> </div> <div style="border-left: 2px solid black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">$+x$</div> <div style="border: 1px solid black; padding: 2px 5px;">$+x$</div> </div> </div> <div style="display: flex; align-items: center; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="display: flex; gap: 5px;"> x x x x </div> <div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">12</div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $12 = 4x$ </div>
<p>Draw two ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin-top: 20px;"> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="text-align: center;"> \longleftrightarrow 9 \longleftrightarrow </div> <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"> <div style="position: absolute; left: 0; right: 0; top: -10px; text-align: center;">9</div> </div> </div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-top: 10px; text-align: center;"> x </div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $9 = \frac{3}{4}x$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin-top: 20px;"> <div style="display: flex; align-items: center; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">x</div> <div style="border: 1px solid black; padding: 2px 5px;">x</div> </div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-top: 10px; position: relative;"> <div style="position: absolute; left: 0; right: 0; bottom: -10px; text-align: center;">1</div> </div> </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin-top: 20px;"> $4x = \frac{1}{3}$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	

Learning Target: I will solve 1-step equations

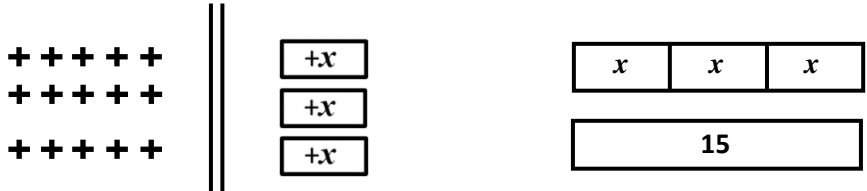
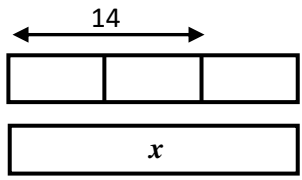
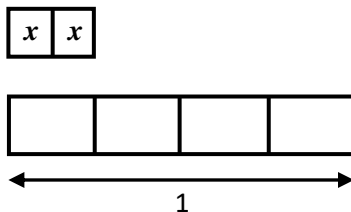
7th Grade - Readiness Standard 6 - 6.EE.7 - Form C

1. We Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="text-align: center; margin: 20px 0;">  </div> <p style="text-align: center;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin: 20px 0;"> $x + 2 = 8$ </div>
<p>Draw <u>two</u> ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	

2. Reflect: What questions do you have about solving 1-step equations?

3. You Do Together: Say, draw, and show.

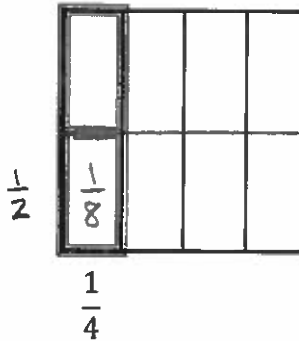
<p>Say what you see</p> <div style="text-align: center; margin: 20px 0;">  </div> <p style="text-align: center;"><i>is equal to</i></p>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin: 20px 0;"> $15 = 3x$ </div>
<p>Draw <u>two</u> ways to find the value of x. (<i>Algebra Tiles and Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin: 20px 0;">  </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin: 20px 0;"> $14 = \frac{2}{3}x$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	
<p>Say what you see</p> <div style="text-align: center; margin: 20px 0;">  </div>	<p>Show your thinking using numbers and symbols</p> <div style="text-align: center; margin: 20px 0;"> $2x = \frac{1}{4}$ </div>
<p>Draw to find the value of x. (<i>Tape Diagrams</i>)</p>	

Learning Target: I will multiply and divide fractions

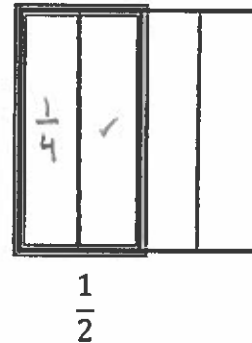
7th Grade - Readiness Standard 1 - 6.NS.1 - Form A

1. We Do Together: Label, multiply, divide and think multiply to divide.

Draw 1-half of 1-fourth of the whole



Draw to find how many 1-fourths are in 1-half



Multiply to find the size of each fractional part

$$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

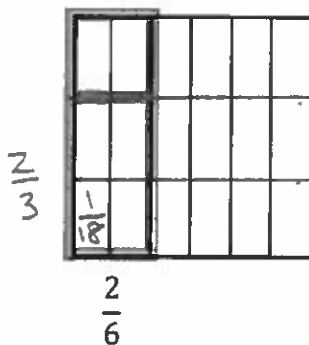
Write the number of groups and think multiply to divide

$$\frac{1}{2} \div \frac{1}{4} = 2 \quad \frac{1}{2} \times \frac{4}{1} = \frac{4}{2} = \frac{2 \cdot 2}{2 \cdot 1} = 2$$

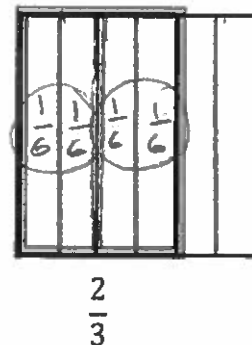
2. Reflect: What questions do you have about multiplying and dividing fractions?

3. You Do Together: Label, multiply, divide and think multiply to divide.

Draw 2-thirds of 2-sixths of the whole



Draw to find how many 2-sixths are in 2-thirds



Multiply to find the size of each fractional part

$$\frac{2}{3} \times \frac{2}{6} = \frac{4}{18} = \frac{2 \cdot 2}{2 \cdot 9} = \frac{2}{9}$$

Write the number of groups and think multiply to divide

$$\frac{2}{3} \div \frac{2}{6} = 2 \quad \frac{2}{3} \times \frac{6}{2} = \frac{12}{6} = \frac{2 \cdot 2}{2 \cdot 1} = 2$$

Learning Target: I will evaluate algebraic expressions

7th Grade - Readiness Standard 4 - 6.EE.2c - Form A

1. We Do Together: Draw, tell and show.

<p>Draw each x as 4 plus signs to evaluate $3x + 2$ when $x = 4$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">+x</div> </div> <div style="margin: 0 10px;">+ +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div>++++</div> <div>++++</div> <div>++++</div> </div> <div style="margin-left: 20px;">++</div> </div> <p style="text-align: center; margin-top: 10px;"><i>Is equal to</i></p> </div> <td style="width: 40%; padding: 10px; vertical-align: top;"> <p>Show your thinking using numbers and symbols</p> $3x + 2 \text{ when } x = 4$ $3(\underline{4}) + 2$ $\underline{12} + 2$ $\underline{14}$ </td>	<p>Show your thinking using numbers and symbols</p> $3x + 2 \text{ when } x = 4$ $3(\underline{4}) + 2$ $\underline{12} + 2$ $\underline{14}$
<p>Tell the value of the 3 x's</p> $x + x + x = 3x = 3(\underline{4}) = \underline{12}$	

2. Reflect: What questions do you have about evaluating algebraic expressions?

3. You Do Together: Draw, tell and show.

<p>Draw each x as 5 plus signs to evaluate $2x + 4$ when $x = 5$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">+x</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 2px;">+x</div> </div> <div style="margin: 0 10px;">+ + +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div>+++++</div> <div>+++++</div> </div> <div style="margin-left: 20px;">+++</div> </div> <p style="text-align: center; margin-top: 10px;"><i>Is equal to</i></p> </div> <td style="width: 40%; padding: 10px; vertical-align: top;"> <p>Show your thinking using numbers and symbols</p> $2x + 3 \text{ when } x = 5$ $2(\underline{5}) + 3$ $\underline{10} + 3$ $\underline{13}$ </td>	<p>Show your thinking using numbers and symbols</p> $2x + 3 \text{ when } x = 5$ $2(\underline{5}) + 3$ $\underline{10} + 3$ $\underline{13}$
<p>Tell the value of the 2 x's</p> $x + x = 2x = 2(\underline{5}) = \underline{10}$	

<p>Draw the x^2 as a 3 by 3 array of plus signs to evaluate $x^2 + 5$ when $x = 3$.</p> <div style="display: flex; align-items: center; justify-content: center; margin: 20px 0;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 2px;">+x²</div> </div> <div style="margin: 0 10px;">+ + + + +</div> <div style="display: flex; align-items: center;"> <div style="border-left: 3px double black; height: 100px; margin: 0 10px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div>+++</div> <div>+++</div> <div>+++</div> </div> <div style="margin-left: 20px;">+++++</div> </div> <p style="text-align: center; margin-top: 10px;"><i>Is equal to</i></p> </div> <td style="width: 40%; padding: 10px; vertical-align: top;"> <p>Show your thinking using numbers and symbols</p> $x^2 + 5 \text{ when } x = 3$ $(\underline{3})^2 + 5$ $\underline{3} \cdot \underline{3} + 5$ $\underline{9} + 5$ $\underline{14}$ </td>	<p>Show your thinking using numbers and symbols</p> $x^2 + 5 \text{ when } x = 3$ $(\underline{3})^2 + 5$ $\underline{3} \cdot \underline{3} + 5$ $\underline{9} + 5$ $\underline{14}$
<p>Tell the value of x^2</p> $x^2 = x \cdot x = \underline{3} \cdot \underline{3} = \underline{9}$	

Learning Target: I will solve 1-step equations

7th Grade - Readiness Standard 6 - 6.EE.7 - Form A

1. We Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div> <p style="text-align: center; margin-top: 10px;">Is equal to</p> <p>Draw <u>two</u> ways to find the value of x. (Algebra Tiles and Tape Diagrams)</p>	<p>Show your thinking using numbers and symbols</p> $ \begin{array}{r} x + 3 = 12 \\ - 3 \quad - 3 \\ \hline x = 9 \end{array} $
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2. Reflect: What questions do you have about solving 1-step equations?

3. You Do Together: Say, draw, and show.

<p>Say what you see</p> <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="text-align: center;"> <p>5 groups of 2</p> </div> <div style="text-align: center;"> </div> </div> <p style="text-align: center; margin-top: 10px;">Is equal to</p> <p>Draw <u>two</u> ways to find the value of x. (Algebra Tiles and Tape Diagrams)</p>	<p>Show your thinking using numbers and symbols</p> $ \begin{array}{r} 10 = 5x \\ \frac{10}{5} = \frac{5x}{5} \\ 2 = x \end{array} $
<p>Say what you see</p> <div style="text-align: center;"> </div> <p style="text-align: center; margin-top: 10px;">Is equal to</p> <p>Draw to find the value of x. (Tape Diagrams)</p>	<p>Show your thinking using numbers and symbols</p> $ \begin{array}{r} \frac{5}{2} \cdot 8 = \frac{2}{5}x \\ \frac{2}{5} \end{array} $
<p>Say what you see</p> <div style="text-align: center;"> </div> <p style="text-align: center; margin-top: 10px;">Is equal to</p> <p>Draw to find the value of x. (Tape Diagrams)</p>	<p>Show your thinking using numbers and symbols</p> $ \begin{array}{r} 3x = \frac{1}{2} \\ \frac{3}{3} \quad \frac{2}{3} \\ x = \frac{1}{2} \cdot \frac{1}{3} = \frac{1}{6} \end{array} $