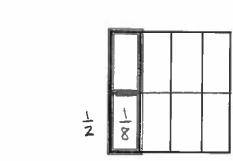Name _____ Date _____

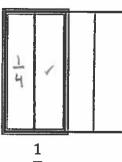**Learning Target:** I will multiply and divide fractions   7th Grade - Readiness Standard 1 - 6.NS.1 - Form A

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

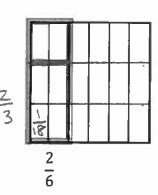| **Draw** 1-half of 1-fourth of the whole	**Draw** to find how many <u>1-fourths</u> are in 1-half
$\frac{1}{2}$ $\frac{1}{8}$ $\frac{1}{4}$	$\frac{1}{4}$ ✓ $\frac{1}{2}$
Multiply to find the size of each fractional part	**Write** the number of groups and think multiply to divide
$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$	$\frac{1}{2} \div \frac{1}{4} = 2$ $\frac{1}{2} \times \frac{4}{1} = \frac{4}{2} = \frac{2 \cdot 2}{2 \cdot 1} = 2$

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 <u>2-sixths</u> are in 2-thirds
$\frac{2}{3}$ $\frac{1}{18}$ $\frac{2}{6}$	$\frac{1}{6}\,\frac{1}{6}\,\frac{1}{6}\,\frac{1}{6}$ $\frac{2}{3}$
Multiply to find the size of each fractional part	**Write** the number of groups and think multiply to divide
$\frac{2}{3} \times \frac{2}{6} = \frac{4}{18} = \frac{2 \cdot 2}{2 \cdot 9} = \frac{2}{9}$	$\frac{2}{3} \div \frac{2}{6} = 2$ $\frac{2}{3} \times \frac{6}{2} = \frac{12}{6} = \frac{6 \cdot 2}{6 \cdot 1} = 2$

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.

Draw each x as 4 plus signs to evaluate $3x + 2$ when $x = 4$.	Show your thinking using numbers and symbols
[+x] [+x] [+x] + + ‖ ++++ / ++++ ++ / ++++ *Is equal to*	$3x + 2$ when $x = 4$ $3(\underline{4}) + 2$ $\underline{12} + 2$ $\underline{14}$
Tell the value of the 3 x's $x + x + x = 3x = 3(\underline{4}) = \underline{12}$	

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

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

Draw each x as 5 plus signs to evaluate $2x + 4$ when $x = 5$.	Show your thinking using numbers and symbols
[+x] [+x] + + + ‖ +++++ / +++++ +++ *Is equal to*	$2x + 3$ when $x = 5$ $2(\underline{5}) + 3$ $\underline{10} + 3$ $\underline{13}$
Tell the value of the 2 x's $x + x = 2x = 2(\underline{5}) = \underline{10}$	
Draw the x^2 as a 3 by 3 array of plus signs to evaluate $x^2 + 5$ when $x = 3$.	Show your thinking using numbers and symbols
[+x²] + + + + + ‖ +++ / +++ ++++ / +++ *Is equal to*	$x^2 + 5$ when $x = 3$ $(\underline{3})^2 + 5$ $\underline{3} \cdot \underline{3} + 5$ $\underline{9} + 5$ $\underline{14}$
Tell the value of x^2 $x^2 = x \cdot x = \underline{3} \cdot \underline{3} = \underline{9}$	

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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.

Say what you see	**Draw** the equivalent simplified algebraic expression
[+x] + [+x] + + [+x] + + [+x] + + +	[x] + [x] + [x] + [x] +
Identify the like terms $\underline{x} + 5 + \underline{3x}$	**Write** the equivalent simplified algebraic expression $4x + 5$

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

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

Say what you see	**Draw** the equivalent simplified algebraic expression
[+x²] [+x] + [+x] [+x] + [+x] + [+x] ⊘	[x²] [x] + [x] + [x] + [x] [x]
Identify the like terms $\underline{x^2} + \underline{4x} + \underline{5} + \underline{x} - \underline{2}$	**Write** the equivalent simplified algebraic expression $x^2 + 5x + 3$
Say what you see [+x] + + [+x] + [+x] + + [+x] + [+x] + + + +	**Draw** the equivalent simplified algebraic expression [x] + + [x] + + [x] + + [x] + + [x] + +
Identify the like terms $3(x + 2) + 2x + 4$ or $\underline{3x} + \underline{6} + \underline{2x} + \underline{4}$	**Write** the equivalent simplified algebraic expression $5x + 10$

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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.

Say what you see	Show your thinking using numbers and symbols
$+x$ (+ + +) $\|$ + + + + + / + + + + + / + + 9 3 $\boxed{x \mid 3}$ $\boxed{12}$ *Is equal to*	$x + 3 = 12$ $\underline{\quad -3 \quad -3}$ $x \quad = \quad 9$
Draw two ways to find the value of x. *(Algebra Tiles and Tape Diagrams)*	

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

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

Say what you see	Show your thinking using numbers and symbols
(+ +)(+ +)(+ +)(+ +)(+ +) 5 groups of 2 $\|$ $\boxed{+x}$ $\boxed{+x}$ $\boxed{+x}$ $\boxed{+x}$ $\boxed{+x}$ 2 2 2 2 2 $\boxed{x\mid x\mid x\mid x\mid x}$ $\boxed{10}$ *Is equal to*	$\dfrac{10}{5} = \dfrac{5x}{5}$ $2 = x$
Draw two ways to find the value of x. *(Algebra Tiles and Tape Diagrams)*	
8 $\boxed{4\mid4\mid4\mid4\mid4}$ $\boxed{\quad x \quad}$ 20	$\dfrac{5}{2} \cdot 8 = \dfrac{2}{5}x$ $\dfrac{}{\dfrac{2}{5}}$
Draw to find the value of x. *(Tape Diagrams)*	
$\boxed{x\mid x\mid x}$ $\boxed{\frac{1}{6}\mid\quad\mid\quad\mid\quad\mid\quad}$ 1	$\dfrac{3x}{3} = \dfrac{\frac{1}{2}}{3}$ $x = \dfrac{1}{2} \cdot \dfrac{1}{3} = \dfrac{1}{6}$
Draw to find the value of x. *(Tape Diagrams)*	