

Standard in HP Language	<b>5.M.NF.B.04c:</b> The Highly Proficient student can find the area of a rectangle with fractional side lengths by tiling it with unit squares and explain the process.
Essential Questions	<ol style="list-style-type: none"> <li>1. What is multiplication? How do we multiply fractions?</li> <li>2. What is a fraction model? How is multiplication of fractions represented in a model?</li> <li>3. What is an improper fraction? How are improper fractions related to mixed numbers?</li> <li>4. What is area? How do I solve for area of a rectangle?</li> </ol>
Today we will...	Today we will determine the area of a rectangle/square with fractional side lengths.
Anticipatory Set C- Congruent to Objective A- Active Participation P- Past Experience	Give each table group a figure of a rectangle that has whole number dimensions and is tiled (use graph paper or I used wrapping paper that has unit squares on the back). Give students 2-3 minutes to come with how the area was determined. How did we get the area of 24? How many different strategies can you think of to find that area?
Direct Instruction - "I Do" Teacher: Model & think aloud using academic vocabulary How will students engage with your think aloud and modeling? Students will be... (Covert/overt/combo) - Thinking - Speaking - Writing - Signaling - Performing	Guided Notes: TW use responses from the set to guide students to tile a rectangle with fractional side lengths TW model drawing the rectangle and tiling it into units. TW show students that each unit is a product of the two dimensions. TW use that example to introduce/review the area formulas. Then, TW model using the formula to solve the second problem and use a model to check. Guiding Questions: -How can we break this fraction apart? -What operation adds over and over? -What formula would help us find area? -How does this model prove our area? SW follow along with notes. SW describe how to multiply fractions SW gradually take over using area formula. Students are already familiar with multiplying fractions, so they will be required to explain that process.

<p>Guided Practice- “We do”  Teacher: Model, think aloud, and check for understanding  Students: How will students collaborate with the teacher and with other students to demonstrate/ practice their understanding?  ***Students should be using academic vocabulary and text talkers during collaboration.</p>	<p>SW gradually take over working through area problems. TW set up the first problem with students and then have them work through it in groups using math talk vocabulary. Students will use steps from notes and sentence frames to guide thinking/talk.  We need to split this into _____ .  The length/base is _____ .  The width/height is _____ .  To find the area, we need to _____ .</p>
<p>Closure  C- Congruent to objective  A- Active Participation  P- Past Experience  S- Student Summary- Whole Group</p>	<p>SW will take 3 minutes to respond:  Which of the following has the largest area?  a. Length: <math>\frac{7}{10}</math> cm Width: <math>\frac{2}{5}</math> cm  b. Length: <math>\frac{7}{8}</math> cm Width: 3 cm  c. Length: <math>\frac{4}{5}</math> cm Width: <math>\frac{9}{10}</math> cm  Explain!</p>
<p>Independent Practice- “You do”  - Model 1st question- Demonstrate the student outcome expectations - Verbal and visual reminders of success criteria  - Verbal and visual prompt of what to do when finished early - Post answer key, if applicable</p>	<p>SW work independently on 5 problems that require them to find the area of a rectangle with fractional sides and prove with models. TW pull a small group to provide extra support.</p>
<p>RNE:</p>	<p>Deb has a framed painting hanging in her living room. The dimensions of the entire piece (frame and painting) are <math>\frac{4}{5}</math> ft by 4 ft. What is the area of just the frame if the painting measures?:  <math>b = \frac{2}{3}</math> ft <math>h = 3</math> ft  Terrell has 4 square rugs that have a length of <math>3\frac{1}{2}</math> ft. What is the total area of all 4 rugs when laid out together?</p>