

**Math: Grade 5, Lesson 2, *Adding Fractions***

**Lesson Focus:** The students will add fractions with unlike denominators.

**Practice Focus:** Add fractions with unlike denominators using the strategy of creating equivalent fractions

**TN Standards:** 5.NF.A.1

**Teacher Materials:**

- Paper
- Pens/markers/pencils

**Student Materials:**

- Paper and a pencil, and a surface to write on
- Student Practice Packet for Math, Grade 5, Lesson 2 which can be found at [www.tn.gov/education](http://www.tn.gov/education)

Teacher Do	Student Do
<p><b><u>Opening</u></b></p> <p><b>Hello! Welcome to Tennessee’s At Home Learning Series for math! Today’s lesson is for all our 5<sup>th</sup> graders out there, though all children are welcome to tune in. This lesson is the second in our series.</b></p> <p><b>My name is ____ and I’m a ____ grade teacher in Tennessee schools! I’m so excited to be your teacher for this lesson! Welcome to my virtual classroom!</b></p> <p><b>Today we will add fractions with unlike units using the strategy of creating equivalent fractions.</b></p> <p><b>If you didn’t see our previous lesson, you can find it at <a href="http://www.tn.gov/education">www.tn.gov/education</a>. You can still tune in to today’s lesson if you haven’t see any of our others. But, it might be more fun if you first go back and watch our other lessons since we’ll be talking about things we learned previously.</b></p> <p><b>Before we get started, to participate fully in our lesson today, you will need:</b></p> <ul style="list-style-type: none"><li>• Paper and a pencil, and a surface to write on</li><li>• Student Practice Packet for Math, Grade 5, Lesson 2 which can be found at <a href="http://www.tn.gov/education">www.tn.gov/education</a></li></ul> <p><b>Ok, let’s begin!</b></p>	<p>Student gets paper and a pencil.</p>

<p><b>Intro</b>  <b>We have added fractions with like denominators. Today we will think about adding fractions with unlike denominators.</b></p>	
<p><b>Teacher Model</b>  <b>First, let's recall how to add fractions with like denominators. Remember that the denominator is the bottom number in the fraction.</b>          [After each problem give the student time to think of the answer.]  <math>\frac{1}{3} + \frac{1}{3} = \frac{2}{3}</math>  <math>\frac{1}{4} + \frac{1}{4} = \frac{2}{4}</math>  <b>What is another way to name <math>\frac{2}{4}</math>? [Pause]</b>  <b>Did you say <math>\frac{1}{2}</math>? Good!</b>  <math>\frac{1}{5} + \frac{2}{5} = \frac{3}{5}</math>  <b>We can draw a picture. That may help us understand.</b> [See figure one below]  <math>\frac{3}{7} + \frac{4}{7} = \frac{7}{7}</math>  <b>What is another way to name <math>\frac{7}{7}</math>? [Pause]</b>  <b>Did you say 1? Good!</b></p>	<p>Work the problems as the teacher writes them.</p> <p>Student reduces the fraction to <math>\frac{1}{2}</math>.</p> <p>Student reduces the fraction to 1.</p>
<p><b>Guided Practice</b>          [Write Problem] <math>\frac{1}{3} + \frac{1}{2}</math>  <b>Let's recall that the denominator tells us how many parts are in the whole. Notice that in our first fraction there are three parts, but in our second fraction there are two parts.</b>  <b>Let's draw a picture of this.</b>          [See figure two below]  <b>When we partition a rectangle into thirds, how many units do we have in all? [Pause]</b>  <b>3! Good!</b>          [Partition the thirds horizontally.]  <b>How many of those units are we shading?</b>          [Pause] <b>1! Good!</b>          [Shade one unit.]  <b>Now let's draw the same rectangle to show halves. How many units do we need? [Pause]</b>  <b>2! Good!</b>          [Partition the halves vertically.          Shade one of the halves.]  <b>Let's make these units the same size.</b></p>	<p>Student draws a picture along with the teacher.</p>

<p>[Partition the rectangles so the units are the same size.]</p> <p><b>What is the fractional value of one unit?</b></p> <p>[pause]</p> <p><b>1/6, good!</b></p> <p><b>How many sixths are equal to 1/3?</b> [pause]</p> <p><b>2! Good!</b></p> <p><b>So we can rewrite 1/3 as 2/6.</b></p> <p><b>How many sixths are equal to 1/2?</b> [pause]</p> <p><b>3! Good!</b></p> <p><b>So we can rewrite 1/2 as 3/6.</b></p> <p><b>We can create equivalent fractions so that the denominators are the same.</b></p> <p><math>1/3 = 2/6</math></p> <p><b>(Remember: <math>\frac{1 \times 2}{3 \times 2} = \frac{2}{6}</math>)</b></p> <p><math>1/2 = 3/6</math></p> <p><b>( <math>\frac{1 \times 3}{2 \times 3} = \frac{3}{6}</math> )</b></p> <p><b>So <math>1/3 + 1/2</math> becomes</b></p> <p><b><math>2/6 + 3/6 = 5/6</math></b></p> <p><b>Does this agree with our picture? Do we have 5 parts shaded?</b> [Pause] <b>Yes!</b></p> <p><b>So, now we know that we must have like denominators to add. We can create equivalent fractions in order to make the denominators the same. Let's practice.</b></p> <p><b><math>2/3 + 1/4</math> You can draw rectangles if it helps you understand.</b> [Pause]</p> <p>[Give the student time to draw the rectangles. Draw the rectangles and explain as you draw.]</p> <p><b><math>2/3</math> is the same as <math>8/12</math>.</b></p> <p><b><math>1/4</math> is the same as <math>3/12</math>.</b></p> <p><b><math>8/12 + 3/12 = 11/12</math></b></p>	<p>Student creates equivalent fractions and adds.</p> <p>Student notices that this agrees with his picture.</p> <p>Student works the problem, then checks his work with the teacher's work.</p>
<p><b><u>Independent Practice</u></b></p> <p><b>Today we have practiced adding fractions with unlike denominators. You sure did a great job!</b></p> <p><b>After the video, you will have some problems to practice on your own. Good luck and do your best!</b></p>	
<p><b><u>Closing</u></b></p>	

**PBS Lesson Series**

<p><b>I enjoyed learning about fractions with you today! Thank you for inviting me into your home. I look forward to seeing you in our next lesson in Tennessee's At Home Learning Series! Bye!</b></p>	
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Figure One

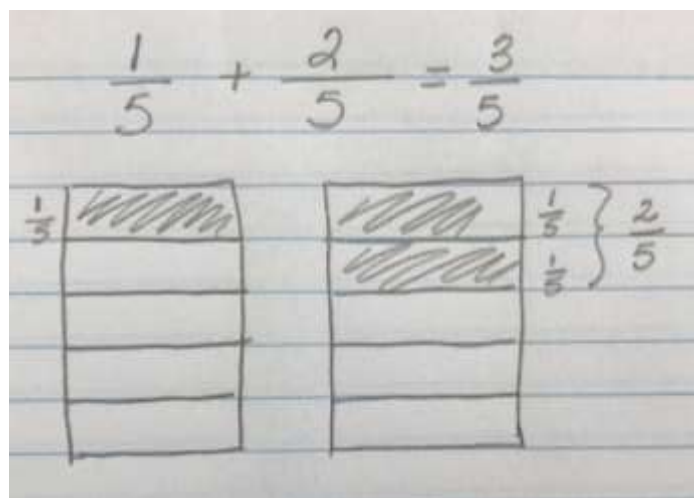
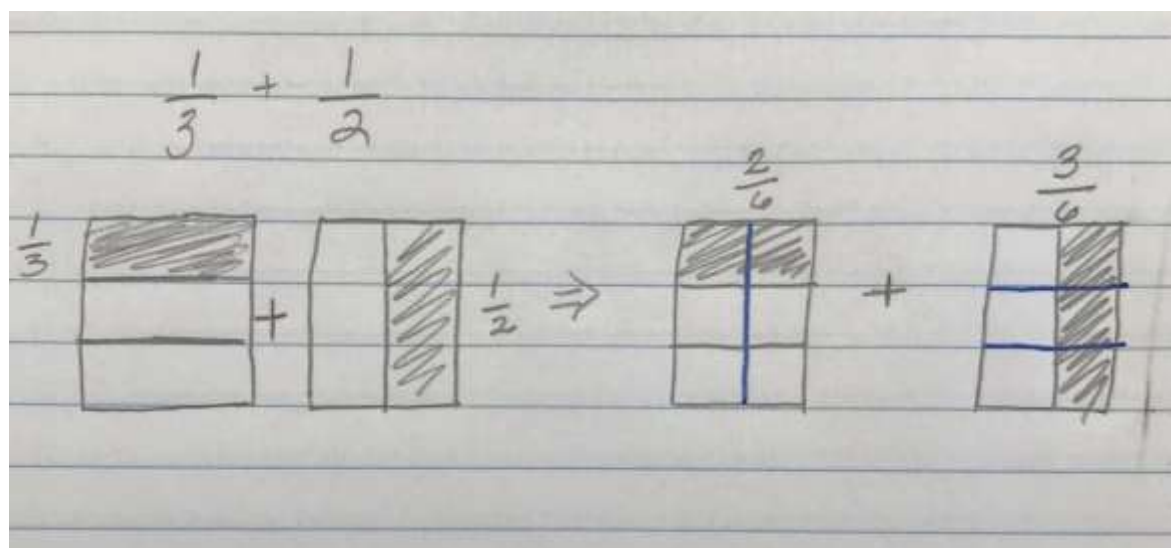


Figure Two



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