

G4-M5-Lesson 15

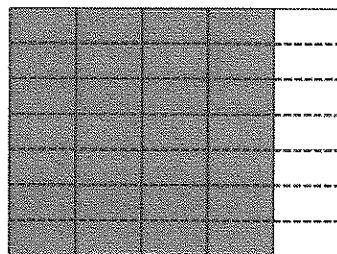
1. Draw an area model for the pair of fractions, and use it to compare the two fractions by writing $<$, $>$, or $=$ on the line.

$$\frac{4}{5} < \frac{6}{7}$$

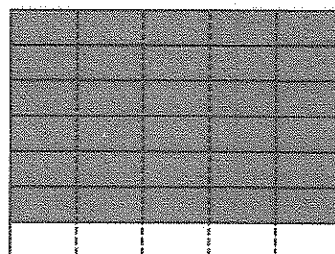
I use two area models that are exactly the same size to find like units. After partitioning, I have 35 units in each model. Now I can compare!

$$\frac{28}{35} < \frac{30}{35}$$

$$\frac{4 \times 7}{5 \times 7} = \frac{28}{35}$$



I represent fifths with vertical lines and then partition fifths by drawing horizontal lines.



$$\frac{6 \times 5}{7 \times 5} = \frac{30}{35}$$

I represent sevenths with horizontal lines and then partition sevenths by drawing vertical lines.

2. Rename the fractions below using multiplication, and then compare by writing $<$, $>$, or $=$.

$$\frac{5}{8} < \frac{9}{12}$$

$$\frac{5 \times 12}{8 \times 12} = \frac{60}{96}$$

$$\frac{9 \times 8}{12 \times 8} = \frac{72}{96}$$

Whew! That would have been a lot of units to draw in an area model!

$$\frac{60}{96} < \frac{72}{96}$$

Using multiplication to make common units is quick and precise. It is best to compare fractions when the units are the same.

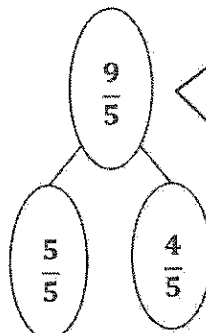
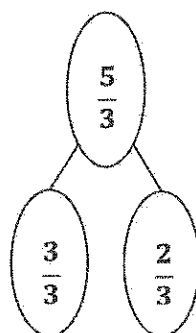
3. Use any method to compare the fractions below. Record your answer using $<$, $>$, or $=$.

$$\frac{5}{3} < \frac{9}{5}$$

$$\frac{3}{3} = \frac{5}{5}$$

$$\frac{2}{3} < \frac{4}{5}$$

I use benchmarks to compare. $\frac{4}{5}$ is closer to 1 than $\frac{2}{3}$ because fifths are smaller than thirds.



I use number bonds to decompose fractions greater than 1. This lets me focus on the fractional parts, $\frac{2}{3}$ and $\frac{4}{5}$, to compare since $\frac{3}{3}$ and $\frac{5}{5}$ are equivalent.