

# CONSTRUCTING MODELS

## COMPARISON A-E

Students are encouraged to develop a range of different strategies for comparing fractions and to use them strategically, based on the situation. The following artefacts are examples of student use of various models for comparing fractions.

### PAPER FOLDING AREA MODEL

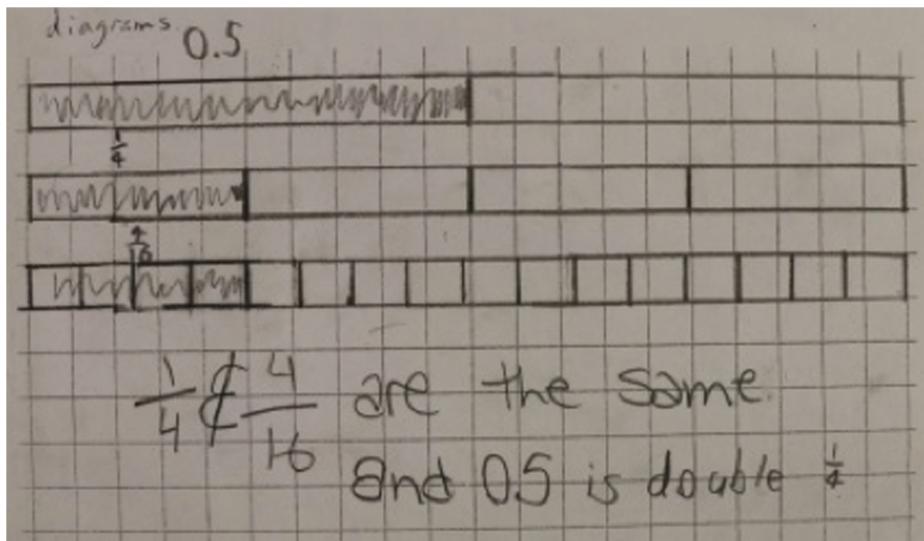
Prompt: Identify a fraction equivalent to  $\frac{2}{6}$ . (Comp A)



Annotation: Paper folding allows students to use their spatial reasoning and proportional reasoning to partition a whole. Students can easily modify their partitions to increase accuracy. For the pink strip, this student used the partitions of sixths (vertical) and a partition of one-half (horizontal) to create partitions of twelfths. In this example, when discussing in the classroom, the student overlaid the two representations to prove that the regions are the same size. Such activities build fraction number sense.

### AREA MODEL

Prompt: Frank thinks that  $\frac{1}{4}$ , 0.5 and  $\frac{4}{16}$  would all be placed at the same location on the number line. Do you agree or disagree? Show your thinking in diagrams and words. (Comp B)



This student has partitioned the equal size wholes accurately into twentieths and sixteenths. Note: Including a decimal for comparison requires students to consider the relationship between fractions and decimals. In this sample, the student used a scale of 20 squares to equal one whole, adding challenge to the representation of sixteenths.