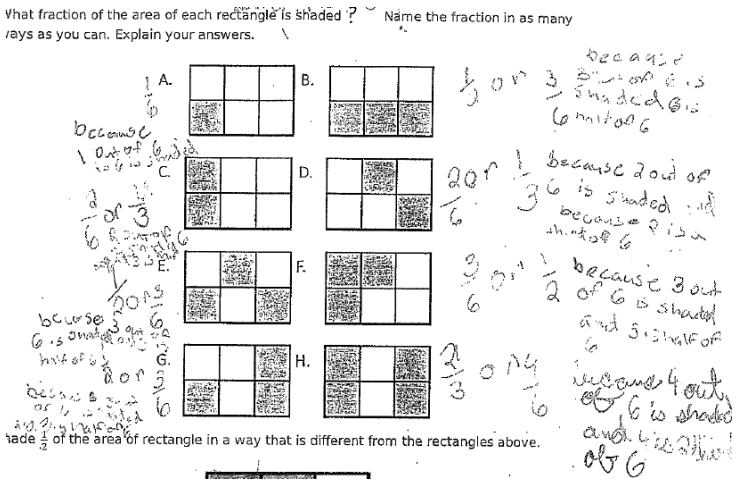
Student A



Commentary

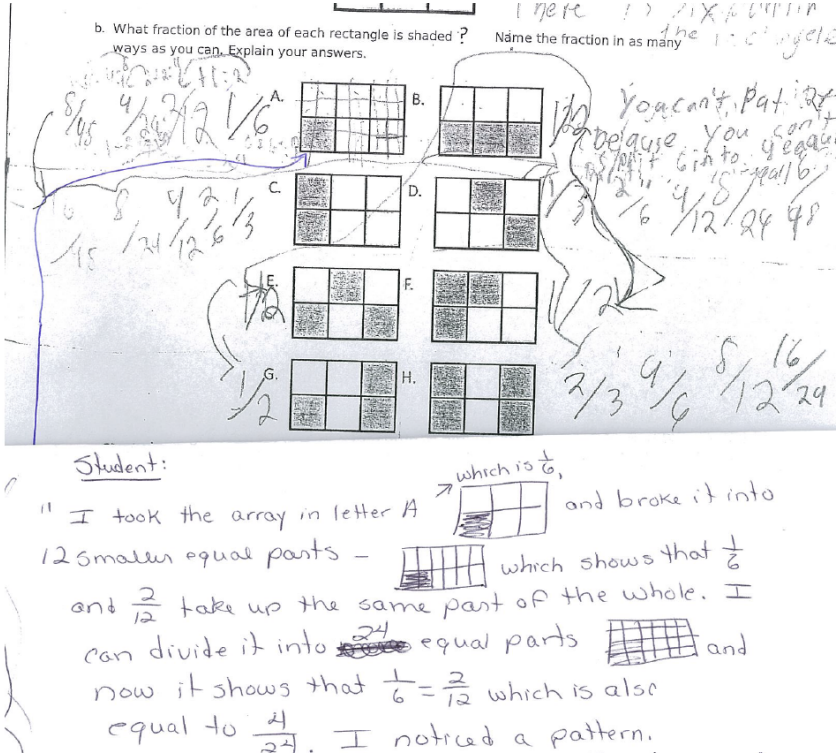
This student's argument was categorized as **high quality**.

Student A claims that 2/6 and 1/3 are equivalent fractions. Student A also claims that 2/3 or 4/6 are equivalent fractions. Student A states the that "because 2 out of 6 is shaded and because 2 is 1/3 of 6."(D.) He or she also states that "because 4 out of 6 is shaded and 4 is 2/3 of 6."(H.) Student A demonstrates an implied understanding of inverse operations of multiplication and division by a whole to compute equivalent fractions. There could be a judgment call in the implied mathematical computation of multiplying and dividing by a whole, as is suggested through the explanations.

Argumentation Components

Claim	**Evidence**
The claim is stated as the equivalent fractions in each case. For example, in D. that 2/6 and 1/3 are equivalent fractions	Equivalent fractions are stated for each model
Warrants	**Language & Computation**
The student states they are equivalent because they name the shaded part of fraction shown. For example, in H. they state 4 is 2/3 of 6.	All mathematical computations and statements are correct.

Student B



Commentary

This student's argument was categorized as **high quality**.

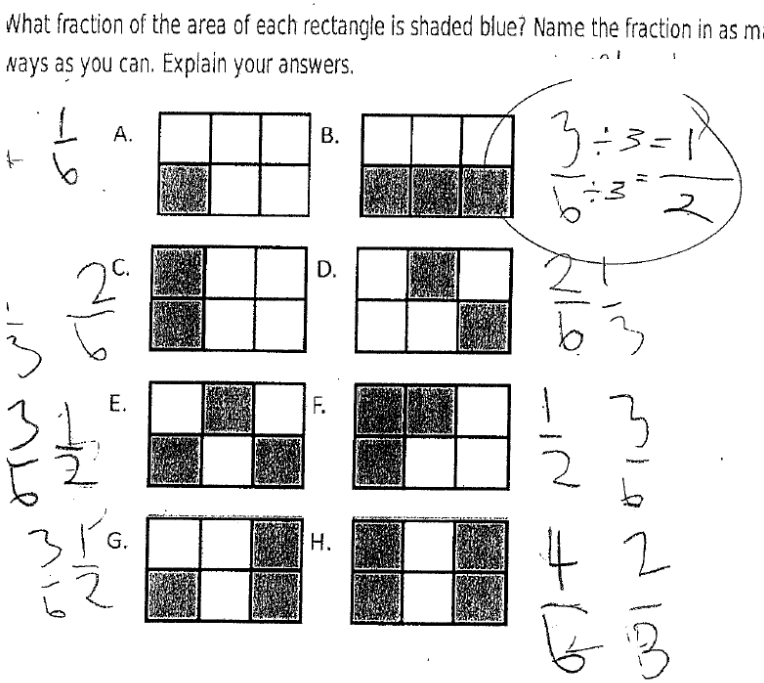
Student B demonstrates partitioning of a whole (same whole) to create equivalent fractions. The student shows that by partitioning (see A), she is creating equal parts of the same whole and is able to list numerical equivalent fractions that match an array model of the fractions as well. Only picture A shows this use of partitioning and is assumed for the other fractions.

The student's written explanation clearly demonstrates an understanding of equal parts of a whole and correctly supports the claim.

Argumentation Components

Claim	**Evidence**
8/48, 4/24, 2/12, 1/6 are all equivalent fractions.	The picture in A shows different partitioning of a whole that were used to generate the lists of equivalent fractions.
Warrants	**Language & Computation**
The explanation below the figure provides a strong connection between the visual evidence and the claim. Example of warrants offered: "1/6 and 2/12 take up the same part of the whole."	All mathematical computations and statements are correct.

Student C



Commentary

This student's argument was categorized as **adequate quality**.

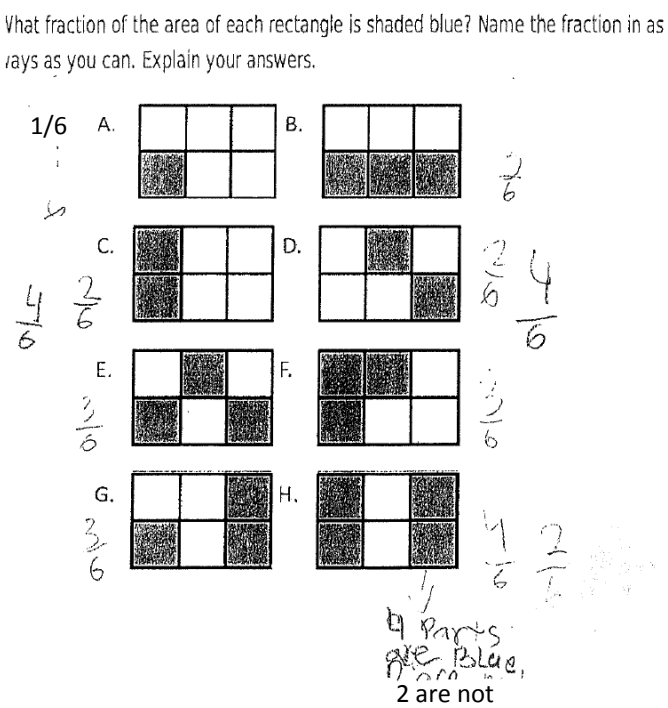
Student C showed equivalent fractions through dividing both numerator and denominator by the same whole number; however there is no rationale or warrant for why this generates an equivalent fraction. Student C only provided one example as evidence.

The argument could be strengthened by explicitly stating that 3/3 is a form of 1, which would give an equivalent fraction.

Argumentation Components

Claim	**Evidence**
Student correctly names one equivalent fraction for each model.	See student work on part B.
Warrants	**Language & Computation**
Warrants are missing.	All mathematical computations and statements are correct.

Student D



Commentary

This student's argument was categorized as **low quality**.

The student explicitly states that 4 parts are blue and 2 are not, which explains how 4/6 was obtained. However, *the work does not display understanding of equivalent fractions. The student is simply naming the shaded and un-shaded regions in each rectangle without addressing the part of the prompt about different fractions that represent the shaded region.*

The work might indicate a misunderstanding between naming fractions in different ways (equivalent fractions) and naming all fractions represented in the picture (definition of fractions).

Argumentation Components

Claim	**Evidence**
That the shaded part or number over a whole is a fraction.	Student identified and labeled fractions as parts of a whole.
Warrants	**Language & Computation**
Warrants are missing.	The fractions are correct; although they do not completely address the prompt in the task. Very little language is used; but what *is* stated contains no errors.

Key Connecting Sorting Packet to Argumentation Resource Packet

Student number (Soring Packet)	Resource Packet Sample
1	B
2	D
3	C
4	A
5	
6	
7	
8	
9	

Student number (Soring Packet)	Resource Packet Sample (category)
4	A (high)
1	B (high)
3	C (adequate)
2	D (low)
	E ( )
	F ( )
	G ( )
	H ( )
	I ( )