A mixture of juice is made up of cranberry juice and apple juice in a ratio of 4:3.
How many cups of each are needed to make 140 cups of juice?
Explain your reasoning.

	Student Responses	Rubric Level and Notes
Student 1	80 cups of cranberry juice and 60 cups of apple juice are needed. I used a tape diagram to solve the problem. cranberry | 20 | 20 | 20 | 20 | apple | 20 | 20 | 20 | 140 I made 4 boxes to represent cranberry and 3 boxes to represent apple, since the ratio was 4:3. The total of all boxes equals 140, and I know that each box equals the same amount. There are 7 boxes total, so I divided 140 by 7 to find the amount in each box. 140 ÷ 7 = 20 Cranberry: 4 · 20 = 80 Apple: 3 · 20 = 60	
Student 2	80 cups of cranberry juice and 60 cups of apple juice are needed. 7n = 140; n = 20 4 · 20 = 80 and 3 · 20 = 60	
Student 3	80 cups of cranberry juice and 60 cups of apple juice are needed. <table><tr><td>Cranberry</td><td>4</td><td>8</td><td>80</td></tr><tr><td>Apple</td><td>3</td><td>6</td><td>60</td></tr><tr><td>Total</td><td>7</td><td>14</td><td>140</td></tr></table> I made a table until the total amount reached 140.	