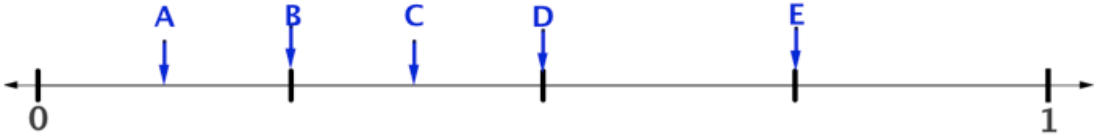


# Sample Student Work

Included below are sample student responses to the *Locating Fractions* assessment Part I with discussion and considerations for intervention.

**Assessment Item:**

**Part I.** The letters represent locations on the number line. For each question, choose the letter that best represents the given fraction.



**Sample Student # 1: Pre-Assessment Response (Item # 3)**

<b>3.</b>	Select the letter that best represents the location of:  $\frac{3}{8}$	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	Explain your reasoning: $\frac{3}{8}$ is a small fraction so it must be close to the beginning.  ?
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**Comment / Instructional Intervention**

The student shows partial understanding of size of the fraction and location relative to 0 or 1 on the number line, “Must be close to the beginning” but is not accurate in relationship to the  $\frac{1}{4}$  marks on the number line.

The *Where is the Fraction? (1)* applet can be used to investigate the relative position of  $\frac{1}{8}$  and  $\frac{1}{4}$  on the number line.

[ <http://maine.edc.org/file.php/1/tools/WhereIsTheFraction1.html> ]

**Sample Student # 1: Post-Assessment Response (Item # 3)**

<b>3.</b>	Select the letter that best represents the location of:  $\frac{3}{8}$	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	Explain your reasoning: It's the 3 <sup>rd</sup> piece out of 8 piece on the number line. 
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**Comment / Instructional Intervention**

The student shows understanding of both the partition and number on the post assessment.



**Sample Student # 2: Pre-Assessment Response (Item # 3)**

<p>Select the letter that best represents the location of:</p> $\frac{3}{8}$	<p> <input checked="" type="checkbox"/> A  <input type="checkbox"/> B  <input type="checkbox"/> C  <input type="checkbox"/> D  <input type="checkbox"/> E         </p>	<p>Explain your reasoning:</p> <p>It is smaller than a <math>\frac{1}{4}</math></p>
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**Comment / Instructional Intervention**

This student also shows partial understanding of size of the fraction, "It is smaller than  $\frac{1}{4}$ " but there is a question about the "it". While  $\frac{1}{8}$  is smaller than  $\frac{1}{4}$ ,  $\frac{3}{8}$  is greater than  $\frac{1}{4}$  so you can use the *Where is the Fraction? (1)* applet to ask the student a series of questions to clarify his or her thinking.

[ <http://maine.edc.org/file.php/1/tools/WhereIsTheFraction1.html> ]

**Sample Student # 2: Post-Assessment Response (Item # 3)**

<p>3.</p>	<p>Select the letter that best represents the location of:</p> $\frac{3}{8}$	<p> <input checked="" type="checkbox"/> A  <input type="checkbox"/> B  <input checked="" type="checkbox"/> C  <input type="checkbox"/> D  <input type="checkbox"/> E         </p>	<p>Explain your reasoning:</p> <p>A is <math>\frac{1}{8}</math> B is <math>\frac{2}{8}</math> and C is <math>\frac{3}{8}</math></p>
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**Comment / Instructional Intervention**

The student shows understanding of the partitioning into eighths, next it would be important to ask the relationship to fourths.

*Example questions:*

"How does  $\frac{1}{8}$  compare to  $\frac{1}{4}$  ?" Show me how you know using the applet.

"How does  $\frac{2}{8}$  compare to  $\frac{1}{4}$  ?" Show me how you know using the applet.

"How does  $\frac{3}{8}$  compare to  $\frac{1}{4}$  ?" Show me how you know using the applet.

"How does  $\frac{3}{8}$  compare to  $\frac{2}{4}$  ( or  $\frac{1}{2}$  ) ?" Show me how you know using the applet.

