

Misconception/Error	Suggested Intervention
<p>The student may not have had enough experiences or practice with fractional set models.</p>	<ul style="list-style-type: none"> • Use both teacher- and student-led modeling following a concrete/representation/abstract approach. • Use a variety of concrete fraction models to include two-color counters, snap cubes, etc. • Students should experience peer coaching opportunities to include peer explanations and justifications orally and in writing. • Provide experiences with virtual manipulatives.
<p>The student finds $\frac{1}{4}$ of 5 and $\frac{1}{4}$ of 3 instead of $\frac{1}{4}$ of the whole set (8).</p>	<ul style="list-style-type: none"> • Provide for students, modeling experiences in “parts to whole” constructs so they may gain confidence in decomposition and composition of parts and wholes, use a variety of fraction manipulatives. • Provide additional opportunities to solve similar word problems. • Provide guided practice with identification of the whole with discourse to ensure students understand the meaning of fractional parts in relation to the whole. • Provide experiences to understand the meaning of “whole”:
<p>The student does not understand the meaning of $\frac{1}{4}$.</p>	<ul style="list-style-type: none"> • Build understanding of the relationship of part to whole. • Provide experiences to represent fraction of a set, starting with $\frac{1}{2}$ of a set. • Model how to find a fraction of a set using manipulatives. • Use a think aloud strategy to model finding fraction of a set. • Provide teacher guided experiences with problem contexts.
<p>The student does not understand what the fraction represents.</p>	<ul style="list-style-type: none"> • Incorporate the language of fractions in everyday classroom activities and across curriculum. • Provide teacher guided experiences to include student probing strategies to monitor their thinking and problem

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	<p>solving. (<i>What do you know? How will you solve this problem?</i>)</p> <ul style="list-style-type: none"> • Provide additional work with a variety of concrete fraction manipulatives (region/area, set, length/measurement models). • Provide additional examples using the same context, but change the size of the whole. • Provide experiences to differentiate between a numerator and denominator in a fraction symbol.
<p>The student does not understand that the parts make up the whole and that the whole can be broken back down into equal parts.</p>	<ul style="list-style-type: none"> • Provide students with additional concrete, hands-on practice with a variety of fraction manipulatives. • Model solution strategies for similar problems. • Provide opportunities to solve problems with peers who have a good understanding of fraction concepts. • Use “think alouds” to model naming the fraction of a set.
<p>The student states an answer of 2, focusing on the opposite part of the set. ($\frac{3}{4}$ instead of $\frac{1}{4}$)</p>	<ul style="list-style-type: none"> • Provide additional practice with identifying, creating, and representing fractions of a set with a variety of manipulatives. • Provide additional instruction using only unit fractions of sets (i.e., $\frac{1}{2}$ of 2, $\frac{1}{2}$ of 4, $\frac{1}{2}$ of 8, etc.).
<p>The student does not understand the problem.</p>	<ul style="list-style-type: none"> • Provide additional experiences to solve word problems with a fraction context. • Interview the student to see if thinking is different from representations. • Revisit work with manipulative models to focus on understanding of the action of the problem.