

Error Detectives Answer Key

1. Correct: $\frac{1}{2} < 0.6$. Reason: $\frac{1}{2} = 0.5$, and 0.5 is less than 0.6.
2. Correct: $\frac{3}{4} = 0.75$. Reason: They are equivalent.
3. Correct: $\frac{2}{5} < 0.5$. Reason: $\frac{2}{5} = 0.4$, and 0.4 is less than 0.5.
4. Correct: $\frac{7}{10} > 0.65$. Reason: $\frac{7}{10} = 0.70$, which is greater than 0.65.
5. Correct: $\frac{5}{8} > 0.60$. Reason: $\frac{5}{8} = 0.625$, which is greater than 0.60.
6. Correct: $\frac{1}{4} < 0.30$. Reason: $\frac{1}{4} = 0.25$, which is less than 0.30.
7. Correct: $\frac{9}{10} > 0.85$. Reason: $\frac{9}{10} = 0.90$, which is greater than 0.85.
8. Correct: $\frac{3}{8} < 0.40$. Reason: $\frac{3}{8} = 0.375$, which is less than 0.40.

Teacher's Guide

- Encourage students to convert fractions to decimals before deciding whether the comparison is correct.
- Ask students to explain the misconception, not just fix the symbol.
- Provide a reference chart of common fraction-decimal equivalents for students who need additional support.
- Have students discuss each error with a partner before sharing corrections with the class.
- Invite students to invent one incorrect comparison of their own and challenge a classmate to find and correct the mistake.
- Extend the lesson by asking students to sort the errors into categories, such as "equivalent values," "fraction converted incorrectly," or "comparison symbol used incorrectly."