

9. Fraction Pairs Record Sheet

Name:
School:
Year Level:

*Show the student each fraction pair card, one at a time.
Please point to the larger fraction or are they the same?... How did you decide?*

Don't allow use of paper and pencil.

Only continue with f-h if complete success in a-e

a. $\frac{3}{8}$ $\frac{7}{8}$

- **d the same and compares n**
 - Benchmarking to $\frac{1}{2}$ and/or 1
 - Residual thinking ($1/8 < 5/8$)
 - Other (satisfactory)
-
- Compares numerator only ($7 > 3$)
 - Gap thinking ($1 < 5$)
 - Smaller numbers mean bigger fractions
 - Other (unsatisfactory)

e. $\frac{4}{7}$ $\frac{4}{5}$

- **n the same and compares d**
 - Converts to common denominator ($28/35 > 20/35$)
 - Benchmarks to $\frac{1}{2}$ and 1
 - Residual thinking ($1/5 < 3/7$)
 - Other (satisfactory)
-
- More area (sometimes related to an image)
 - Compares denominator only ($7 > 5$)
 - Gap thinking ($1 < 3$)
 - Other (unsatisfactory)

b. $\frac{2}{4}$ $\frac{4}{8}$

- **Equivalent ("the same")**
- Other (satisfactory)
- "Higher" or "larger" numbers
- Gap thinking ($2 < 4$)
- Other (unsatisfactory)

f. $\frac{3}{7}$ $\frac{5}{8}$

- **Benchmarks to one half ($3/7 < 1/2$ & $5/8 > 1/2$)**
- Converts to common denominator ($35/56 > 24/56$)
- Other (satisfactory)
- Residual thinking ($3/8 < 4/7$)
- "Higher" or "larger" numbers
- Gap thinking ($3 < 4$)
- Other (unsatisfactory)

c. $\frac{1}{2}$ $\frac{5}{8}$

- **Benchmarks to one half ($5/8 > 1/2$)**
- Converts to common denominator ($5/8 > 4/8$)
- Other (satisfactory)
- "Higher" or "larger" numbers
- Gap thinking ($1 < 3$)
- Other (unsatisfactory)

- **Residual thinking ($1/6 > 1/8$)**
- Converts to common denominator ($21/24 > 20/24$ or $42/48 > 40/48$)
- Other (satisfactory)

d. $\frac{2}{4}$ $\frac{4}{2}$

- **Equates to $\frac{1}{2}$ and 2**
- Equates to a $\frac{1}{2}$ and more than 1
- Converts to common denominator ($8/4 > 2/4$ or $4/2 > 1/2$ etc)
- Other (satisfactory)
- "Both the same"
- Compares numerators or denominators ($4 > 2$)
- Improper fraction
- Other (unsatisfactory)

g. $\frac{5}{6}$ $\frac{7}{8}$

- "Higher" or "larger" numbers
- Gap thinking (both have a gap of one)
- Other (unsatisfactory)

h. $\frac{3}{4}$ $\frac{7}{9}$

- **Residual thinking with equivalence ($2/8 > 2/9$)**
- Residual thinking ($1/4 > 2/9$) with some other proof
- Converts to common denominator ($28/36 > 27/36$)
- Other (satisfactory)
- "Higher" or "larger" numbers
- Gap thinking ($1 < 2$)
- Other (unsatisfactory)