Domain: Number and Operations-Fractions
3.NF.A: Develop understanding of fractions as numbers.

Calculator Availability: No

| Move a symbol to each box to make true comparisons. |  |  |
| :--- | :--- | :--- |
| $\frac{5}{3} \square \frac{5}{4}$ |  |  |
| $\frac{2}{8} \square \frac{2}{6}$ | $<$ | $>$ |

Alignment: 3.NF.A.3d: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>,=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

In grade 3, students learn to compare fractions with the same numerator or the same denominator. Comparing fractions with the same numerator means that students need to understand how the size of the denominator affects the size of the parts into which the whole is partitioned. Students need to understand that a whole broken into thirds will have parts that are larger than a whole that is broken into fourths, so $5 / 3$ is greater than $5 / 4$ and $2 / 6$ is greater than $2 / 8$.

Coherence: In the grade 2 Measurement and Data domain, students learned to compare the lengths of objects using two different length units. They learned that the larger the length unit, the smaller the number of length units needed to express the length of the object. ${ }^{2 . M D . A .2, ~ 2 . M D . B . ~} 6$ In grade 3, students build on this understanding as they learn about unit fractions and that larger denominator values result in smaller unit fractions. Being able to reason about the size of fractions and understanding fraction equivalence are key understandings for grade 3 because students will need to use them to do fraction computation in grades 4 and 5. ${ }^{4 . N F . B .3,4 . N F . C .5, ~ 5 . N F . B . ~} 5$

Rigor: This item attends to conceptual understanding. Students must integrate grade-level concepts about fractions in order to compare them: that the size of the fraction wholes are equivalent and that the number of parts into which the whole has been partitioned affects the size of each part. This understanding is then applied to compare the number and size of the parts.

Answer Key:

| $\frac{5}{3}>\frac{5}{4}$ |  |  |
| :---: | :---: | :---: |
| $\frac{2}{8}<\frac{2}{6}$ |  |  |
| $=$ | $<$ | > |

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