Content Area: Math   Grade Level: 6th Grade

Reporting Measure: Fraction Division

Level	Description
Above & Beyond (4.0)	The student will: • Simplify complex fractions (for example, convert the fraction $\frac{\frac{8}{9}}{\frac{4}{7}}$ to a simplified proper fraction).
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Proficient (3.0)	The student will: **FD1—Divide fractions by fractions using a model or diagram** (for example, solve the problem $\frac{3}{4} \div \frac{2}{3}$ by representing both fractions with a model or diagram and determining how many times $\frac{2}{3}$ fits into $\frac{3}{4}$). **FD2—Divide fractions by fractions arithmetically** (for example, solve the problem $\frac{2}{7} \div \frac{9}{4}$ by multiplying $\frac{2}{7}$ by the reciprocal of $\frac{9}{4}$).
2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Getting There (2.0)	**FD1—**The student will recognize or recall specific vocabulary (for example, *equivalent fractions*, *improper fraction*) and perform basic processes such as: • Use a diagram to represent a fraction as a number of equal portions of a whole. For example, when given the fraction $\frac{5}{9}$, draw a square divided into 9 equal portions and shade in 5 of them to represent the fraction. • Generate equivalent fractions using a diagram. For example, when given a tape diagram divided into 5 equal portions with 3 portions shaded (to represent $\frac{3}{5}$), further divide each portion into 2 equal portions to represent the equivalent fraction $\frac{6}{10}$. • Explain that a fractional dividend and a fractional divisor both refer to the same whole. For example, explain that the problem $\frac{1}{2} \div \frac{1}{4}$ is asking "how many one-fourth portions of a whole fit into a one-half portion of that same whole?" • Use a diagram to compare multiple fractions. For example, divide one side of a double tape diagram into sixths to represent the fraction $\frac{5}{6}$ and divide the other side into twelfths to represent the fraction $\frac{7}{12}$. **FD2—**The student will recognize or recall specific vocabulary (for example, *inverse*, *reciprocal*, *simplify*) and perform basic processes such as: • Explain that dividing a fraction by a fraction can be accomplished by directly dividing the numerators and the denominators. For example, $\frac{6}{12} \div \frac{2}{6} = \frac{6 \div 2}{12 \div 6} = \frac{3}{2}$. • Explain that dividing a fraction by a fraction can be accomplished by multiplying the dividend by the reciprocal of the divisor. For example, $\frac{6}{12} \div \frac{2}{6} = \frac{6}{12} \times \frac{6}{2} = \frac{6 \times 6}{12 \times 2} = \frac{36}{24} = \frac{3}{2}$. • Simplify a fraction by dividing both the numerator and the denominator by their greatest common factor.

	1.5	Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content
Beginning (1.0)		With help, partial success at score 2.0 content and score 3.0 content