Stage 4 Mathematics student work sample – Grade B

Fraction Worksheet

Part 1

A student was asked to evaluate \( \frac{2}{3} + \frac{5}{6} \).

Here is her working:

\[
\frac{2}{3} + \frac{5}{6} = \frac{12}{18} + \frac{15}{18} = \frac{27}{18} = \frac{3}{2} = 1 \frac{1}{2}
\]

1. This student chose 18 as the common denominator.

Is this the lowest common denominator? \( \square \) \( 0 \)

Show how you can evaluate \( \frac{2}{3} + \frac{5}{6} \) using the lowest common denominator.

\[
\frac{2}{3} \times \frac{2}{2} + \frac{5}{6} \times \frac{1}{1} = \frac{4}{6} + \frac{5}{6} = \frac{9}{6} = 1 \frac{1}{2}
\]

2. Evaluate \( \frac{7}{10} + \frac{3}{4} \times \frac{5}{6} \).

\[
= \frac{14}{20} + \frac{15}{30} = \frac{2}{3} + \frac{1}{2} = 1 \frac{1}{2}
\]
Grade Commentary

Drew demonstrates thorough understanding of the addition and multiplication of fractions. The efficient use of lowest common multiples and highest common factors at appropriate steps in the calculations shows a high level of competence in the relevant processes. The construction of an appropriate word problem for Question 3 would enhance the response.

Drew’s response demonstrates characteristics of work typically produced by a student performing at a grade B standard.