Set A - Question 2f

Note: The object is to divide numerator and denominator by common factors until they can't be made any smaller. The first working shown here goes to the answer in one step using the highest common factor. You may have divided by other common factors and arrived at the answer in more than one step. This is quite correct. These alternative workings are shown here, but you may have taken the steps in a different order. That is also correct.

Dividing by the highest common factor, 18:

$$\frac{18 \div 18}{36 \div 18} = \frac{1}{2}$$

or in two steps using common factors 2 and 9:

$$\frac{18 \div 2}{36 \div 2} = \frac{9}{18} \quad \text{then} \quad \frac{9 \div 9}{18 \div 9} = \frac{1}{2}$$

or in three steps using common factors 2, 3, and 3 again:

$$\frac{18 \div 2}{36 \div 2} = \frac{9}{18} \quad \text{then} \quad \frac{9 \div 3}{18 \div 3} = \frac{3}{6} \quad \text{then} \quad \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$$