

## Answers to Practice Exercises for Chapter 11 – The Four Rules for Rational Numbers

### Set A - Question 15

**Working**

$$6 \div \frac{3}{16}$$

6 is  $\frac{6}{1}$  as a rational number.

To divide by  $\frac{3}{16}$ , multiply by its inverse:  $\frac{16}{3}$

$$\frac{6}{1} \times \frac{16}{3}$$

Divide out the common factor of 3

$$= \frac{\cancel{6}2}{1} \times \frac{16}{\cancel{1}3}$$

Now multiply the numerators, multiply the denominators.

$$= \frac{32}{1}$$

The rational number  $\frac{32}{1}$  is the integer 32

$$= 32$$

If you don't divide out the common factors before multiplying, you will get  $\frac{96}{3}$ . Divide out the common factor of 3 to reduce it to its lowest terms:  $\frac{32}{1} = 32$