

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

### Set A - Question 8

#### Working

$$\frac{11}{16} - \frac{7}{24}$$

$$= \frac{33}{48} - \frac{14}{48}$$

$$= \frac{19}{48}$$

#### Comment

The lowest common multiple of 16 and 24 is 48, so that will be the common denominator

Multiply the numerator and denominator of  $\frac{11}{16}$  by 3 to make  $\frac{33}{48}$  and the numerator and denominator of  $\frac{7}{24}$  by 2 to make  $\frac{14}{48}$ .

Subtract the numerators.

Note: This is a good example of a addition/subtraction where you will make life hard for yourself if you multiply the denominators together to get a common denominator. It does work, but involves some big numbers:

$$\frac{11}{16} - \frac{7}{24}$$

$$= \frac{264}{384} - \frac{112}{384}$$

$$= \frac{152}{384}$$

$$= \frac{19}{48}$$

The product of 16 and 24 is 384, so you can use this as the common denominator if you want to make it hard for yourself.

Multiply the numerator and denominator of  $\frac{11}{16}$  by 24 to make  $\frac{264}{384}$  and the numerator and denominator of  $\frac{7}{24}$  by 16 to make  $\frac{112}{384}$ .

Subtract the numerators. Now you have to reduce it to its lowest terms. The common factor is 8, although you can do it in stages, dividing by 2, 2 and 2 again.