

RAT 10



(RATIO)

# R A T I O

**Ratio : GCSE**

*Non - Calculator Throughout*

## **Lesson 1**

### **1.1 Cancelling Down Ratios**

Ratios cancel down, or simplify, much like fractions do.

### **1.2 Examples**

( i )        5 : 30

( ii )        6 : 15

( iii )       10 : 55

( iv )        14 : 21

( v )        23 : 46

( vi )       2000 : 5000

### 1.3 Exercise

#### Question 1

Cancel down the following ratios as far as possible by removing common factors

( i )      $2 : 14$

( ii )      $3 : 24$

( iii )      $5 : 40$

( iv )      $7 : 49$

( v )      $50 : 500$

( vi )      $4 : 10$

( vii )      $6 : 33$

( viii )      $10 : 15$

( ix )      $4 : 20$

( x )      $9 : 12$

( xi )      $18 : 12$

( xii )      $15 : 50$

**Question 2**

Cancel down the following ratios as far as possible by removing common factors

( i )     9 : 15

( ii )     12 : 14

( iii )     25 : 15

( iv )     12 : 18

( v )     200 : 300

( vi )     75 : 50

( vii )     45 : 36

( viii )     21 : 14

( ix )     8 : 12

( x )     20 : 16

( xi )     18 : 8

( xii )     13 : 39

**Question 3**

Cancel down the following ratios as far as possible by removing common factors

( i )      $4 : 6 : 8$

( ii )      $12 : 18 : 20$

( iii )      $30 : 60 : 40$

( iv )      $22 : 55 : 33$

( v )      $2000 : 4000 : 6000$

( vi )      $10 : 15 : 20$

( vii )      $7 : 28 : 14$

( viii )      $48 : 40 : 12$

( ix )      $8 : 56 : 8$

( x )      $360 : 90 : 180$

( xi )      $55 : 15 : 25$

( xii )      $16 : 40 : 88$

**Question 4**

Tommy receives a Birthday gift of £75.

He decides to split it between

Cinema Tickets : Sweets : Computer Games

in the ratio

$$7 : 8 : 10$$

- ( i )     How much does Tommy spend on Cinema Tickets ?
- ( ii )    How much does Tommy spend on Sweets ?
- ( iii )    How much does Tommy spend on Computer Games ?

**Question 5**

George receives £500 in Christmas money.

He decides to split it between

Saving : iTunes : Cloths

in the ratio

$$3 : 2 : 5$$

- ( i )     How much does George save ?
- ( ii )    How much does George spend on iTunes ?
- ( iii )    How much does George spend on Cloths ?