

# Maths for Computing 1

## Example 1

### **1/3 + 1/5**

To add or subtract fractions they need to be of the same denomination

e.g.  $1/7 + 2/7 = 3/7$

If you multiply the top and bottom numbers of a fraction by the same amount the value is unchanged.

i.e.  $1/2 = 2/4 = 4/8$  etc.,

So convert the fractions in (a) to 15ths as this is the lowest common multiple (LCM) of 3 and 5. Then  $1/3$  becomes  $5/15$  and  $1/5$  becomes  $3/15$ . Now we have:

$$1/3 + 1/5 = 5/15 + 3/15 = \mathbf{8/15} \quad \text{job done!}$$

## Now try these:

- 1)  $2/3 + 3/5 = \mathbf{19/15 = 1 4/15}$
- 2)  $3/4 - 1/3 = \mathbf{5/12}$
- 3)  $1/4 + 1/3 - 1/2 = \mathbf{1/12}$

## Example 2

### **1/3 multiplied by 1/5**

Multiplying is straightforward. Just multiply the top across and the bottom across.

So  $1/2 \times 1/4 = 1/8$

## Now try these:

- 1)  $1/3 \times 1/5 = \mathbf{1/15}$
- 2)  $1/4 \times 1/6 = \mathbf{1/24}$
- 3)  $1/2 \times 4 = \mathbf{2}$
- 4)  $3/5 \times 5/4 = \mathbf{3/4}$

## Example 3

### **1/3 divided by 1/5**

Invert the divisor and multiply

Eg.  $1/3 \div 1/5 = 1/3 \times 5/1 = 5/3$

**Now try these:**

- 1)  $3/5 \div 1/5 = 3$
- 2)  $6/7 \div 3/4 = 24/21 = 1 \frac{1}{7}$
- 3)  $1/2 \div \frac{1}{4} = 2$

**END**