ADDITION & SUBTRACTION OF FRACTIONS
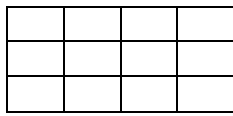
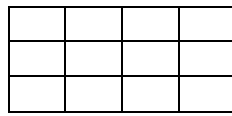## ROB OLLIS

Edition 1

MC MASTER COACHING

Set 1.

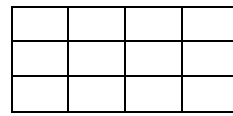**1)** Shade in the amount indicated by the given fraction for each rectangle.
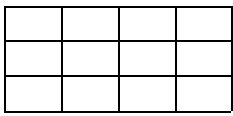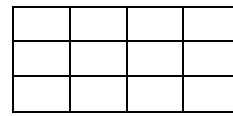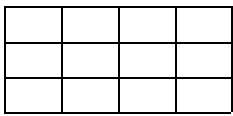
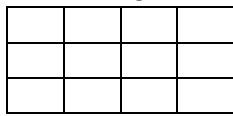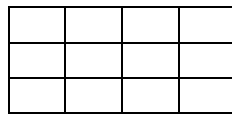(a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{6}$ (e) $\frac{5}{12}$
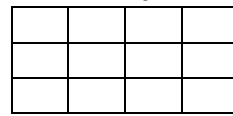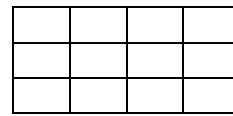
(f) $\frac{6}{12}$ (g) $\frac{4}{12}$ (h) $\frac{9}{12}$ (i) $\frac{2}{3}$ (j) $\frac{3}{4}$
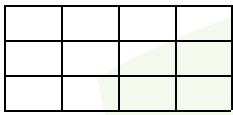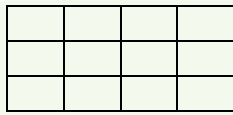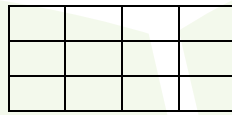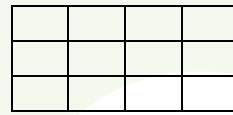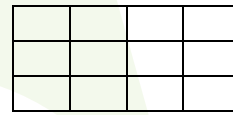
(k) $\frac{3}{6}$ (l) $\frac{3}{12}$ (m) $\frac{7}{12}$ (n) $\frac{4}{6}$ (o) $\frac{8}{12}$

(p) Which other fractions have the same shaded area as $\frac{1}{2}$?

(q) Which other fraction has the same shaded area as $\frac{3}{4}$?

(r) Find 2 fractions that have the same shaded area as $\frac{2}{3}$?

2) What fraction of each group is circled?

(a)   (b)   (c)   (d)
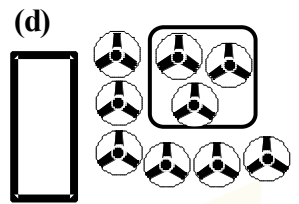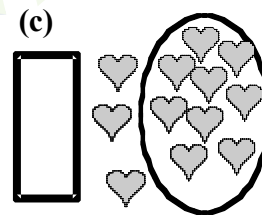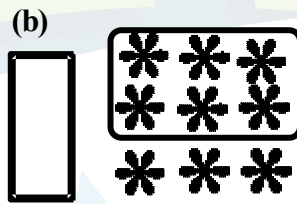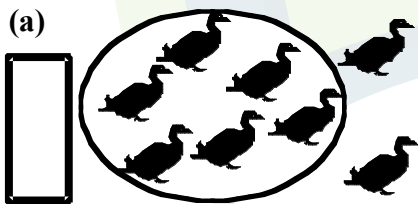
3) Use the opposite diagram to find

(a) $\frac{1}{2}$ of 24 =   (b) $\frac{1}{4}$ of 24 =

(c) $\frac{1}{3}$ of 24 =   (d) $\frac{2}{3}$ of 24 =

(e) $\frac{1}{6}$ of 24 =   (f) $\frac{5}{6}$ of 24 =
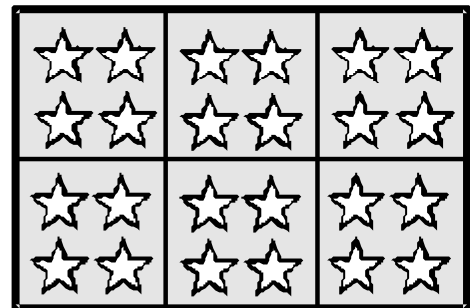
Finding the Simplest Denominator

a

$$\frac{5 \times 2}{12 \times 2} + \frac{1 \times 3}{8 \times 3} = \frac{10}{24} + \frac{3}{24}$$

④ × 3   ④ × 2

Common factor

Step 1 :   Delete the common factor of ④
Step 2 :   Swap the remaining factors to the
              top and bottom of the other fraction

b

$$\frac{3 \times 3}{20 \times 3} + \frac{8 \times 4}{15 \times 4} = \frac{9}{60} + \frac{32}{60}$$

⑤ × 4   ⑤ × 3

Common factor

Step 1 :   Delete the common factor of ⑤
Step 2 :   Swap the remaining factors to the
              top and bottom of the other fraction

The examples on the next page have already had their bottom numbers (*denominators*) factorised.

Remember -

First :   Delete the common factor in the denominators.

Then :   Use the remaining factor(s) to multiply the top and bottom of the other fraction.

Fractions

1 **a** $3\frac{3}{8}$ **b** $3\frac{1}{2}$ **c** $6\frac{1}{8}$ **d** $3\frac{1}{4}$

   e $8\frac{13}{30}$ **f** $5\frac{31}{72}$ **g** $5\frac{1}{20}$ **h** $\frac{3}{8}$

   i $2\frac{1}{2}$ **j** $1\frac{2}{9}$ **k** $16\frac{1}{5}$ **l** $18\frac{1}{4}$

2 **a** $7\frac{5}{8}$ **b** $1\frac{3}{4}$ **c** $4\frac{13}{18}$ **d** $2\frac{11}{12}$

   e $1\frac{11}{12}$ **f** $3\frac{23}{36}$ **g** $5\frac{13}{16}$ **h** $7\frac{7}{10}$

   i $8\frac{3}{4}$ **j** $12\frac{13}{18}$ **k** $15\frac{5}{8}$ **l** $25\frac{12}{35}$

3 **a** $9\frac{5}{12}$ **b** $13\frac{1}{24}$ **c** $8\frac{7}{16}$ **d** $4\frac{23}{40}$

   e $5\frac{23}{24}$ **f** $11\frac{1}{6}$ **g** $12\frac{7}{18}$ **h** $23\frac{19}{20}$

   i $19\frac{5}{6}$ **j** $22\frac{1}{4}$ **k** $\frac{3}{4}$ **l** $3\frac{7}{16}$

4 **Thinkers :**   **a** number is $7\frac{1}{2}$

                 b number is $8\cdot6$

                 c number is 4

Master Coaching Pledge

Master Coaching Keys to Learning:

The following charter has been produced to prepare you the pursuit of excellence that leads to a life-time of rewards and fulfillment. This is a partnership agreement that allows both parties to mutually benefit from your time at Master Coaching

At the coaching session:

1. **Smile, relax, you are focused and in control**
2. **Concentrate, visualize, execute: claim the reward**
3. **Assume success. Our members should approach each test in life enthusiastically; every challenge presents an opportunity to demonstrate your prowess. Relish but don't underestimate the magnitude of the test, instead focus your thoughts towards a positive outcome, a chance to excel; a time to enjoy your moment in the sun.**

Master Coaching Pledge

Master Coaching Pledge

- that your welfare is the paramount consideration in everything that we do
- to be diligent in our preparations which directs our actions in support of you
- show care and give encouragement to you in your striving for excellence
- to personalise all our efforts to your specific needs in all areas
- to encourage you to dare to dream, and to expect that dreams do come true

My Commitment to Master Coaching

- to be honest in all my dealings and
- to accept their accolades and focus my efforts on achieving the zenith in all my endeavours
- to appreciate my cohorts and support them in any way possible
- to live the dream, strive for excellence in everything that I do
- visualise my ultimate success

Christian Avent

CHRISTIAN AVENT
B.Ed. NCAS Principal

Robert A Ollis

ROBERT A. OLLIS
B.Sc., Dip.Ed., M.Sc.
Founder, Master Coaching

Your complete satisfaction is the focus of everything we do.