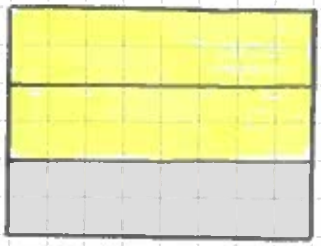
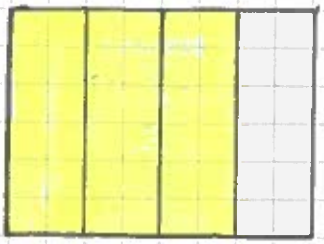
S1/2 HW9

1) a) 

b) 

2) a) $\frac{1}{7} = \frac{2}{14}$ (×2)

b) $\frac{2}{3} = \frac{6}{9}$ (×3)

c) $\frac{3}{5} = \frac{15}{25}$ (×5)

3) $\frac{1}{7} = \frac{2}{14} = \frac{3}{21} = \frac{4}{28} = \frac{5}{35} = \frac{6}{42} = \frac{7}{49}$ (any pair)

4) a) $\frac{2}{5} = \frac{12}{30}$ (×6) ① $\quad \frac{2}{3} = \frac{20}{30}$ (×10) ③ $\quad \frac{7}{10} = \frac{21}{30}$ (×3) ④ $\quad \frac{1}{2} = \frac{15}{30}$ (×15) ②

common denominator 30

$\Rightarrow \frac{2}{5}, \frac{1}{2}, \frac{2}{3}, \frac{7}{10}$

b) $\frac{3}{4} = \frac{30}{40}$ (×10) ④ $\quad \frac{1}{2} = \frac{20}{40}$ (×20) ② $\quad \frac{5}{8} = \frac{25}{40}$ (×5) ③ $\quad \frac{2}{5} = \frac{16}{40}$ (×8) ①

common denominator 40

$\Rightarrow \frac{2}{5}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$

5) a) $\frac{2}{6} = \frac{1}{3}$ (÷2)

b) $\frac{4}{16} = \frac{1}{4}$ (÷4)

c) $\frac{4}{18} = \frac{2}{9}$ (÷2)

d) $\frac{8}{28} = \frac{2}{7}$ (÷4)

6) a) $\frac{8}{5} = 1\frac{3}{5}$

$8 \div 5 = 1 \text{ r } 3$

b) $\frac{9}{2} = 4\frac{1}{2}$

$9 \div 2 = 4 \text{ r } 1$

c) $3\frac{4}{5} = \frac{19}{5}$

$3 \times 5 = 15$
$15 + 4 = 19$

d) $7\frac{5}{8} = \frac{61}{8}$

$7 \times 8 = 56$
$56 + 5 = 61$

7) a) $\frac{1}{2}$ of 564

$2\overline{)564}$ → 282

= 282

b) $\frac{1}{7}$ of 2996

$7\overline{)2996}$ → 428

= 428

c) $\frac{5}{8}$ of 1176

$8\overline{)1176}$ → 147 → $2 \times 3\,5$ → 735

= 735

d) $\frac{4}{9}$ of 3168

$9\overline{)3168}$ → 352 → 2×4 → 1408

= 1408

e) $\frac{3}{4}$ of 3284

$4\overline{)3284}$ → 821 → $\times 3$ → 2463

= 2463

f) $\frac{5}{6}$ of 1944

$6\overline{)1944}$ → 324 → $1 \times 2\,5$ → 1620

= 1620