

NUMBER REVISION

Ex 1

- 1a) 3, 6, 9, 12, 15, 18, 21, 24 b) 5, 10, 15, 20, 25, 30, 35, 40
c) 8, 16, 24, 32, 40, 48, 56, 64 d) 10, 20, 30, 40, 50, 60, 70, 80
e) 12, 24, 36, 48, 60, 72, 84, 96 f) 15, 30, 45, 60, 75, 90, 105, 120
g) 20, 40, 60, 80, 100, 120, 140, 160 h) 35, 70, 105, 140, 175, 210, 245, 280
i) 100, 200, 300, 400, 500, 600, 700, 800,
2. 24, 28, 32, 36 3. 54, 60, 66 4. 63, 70, 77, 84

Ex 2

- 1a) 4, 8, 12, 16, 20, 24, 28, 32, 36, 40 b) 6, 12, 18, 24, 30, 36, 42, 48, 54, 60
c) L.C.M. = 12
- 2a) 8, 16, 24, 32, 40, 48, 56, 64, 72, 80 b) 12, 24, 36, 48, 60, 72, 84, 96, 108, 120
c) L.C.M. = 24
- 3a) 15, 30, 45, 60, 75, 90, 105, 120, 135, 150 b) 20, 40, 60, 80, 100, 120, 140, 160, 180, 200
c) L.C.M. = 60
- 4a) L.C.M. = 6 b) L.C.M. = 20 c) L.C.M. = 36 d) L.C.M. = 56
e) L.C.M. = 12

Ex 3

- 1a) 1, 2, 4, 8 b) 1, 2, 5, 10 c) 1, 15 d) 1, 2, 3, 4, 6, 8, 12, 24
e) 1, 2, 3, 4, 6, 9, 12, 18, 36 f) 1, 2, 5, 10, 25, 50
g) 1, 2, 4, 8, 16, 32, 64 h) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
i) 1, 2, 4, 5, 10, 20, 25, 50, 100

2. a) Yes b) No c) Yes

3 a) Yes b) No c) Yes

Ex 4

1a) 1, 2, 3, 4, 6, 12 b) 1, 2, 4, 8, 16 c) H.C.F = 4

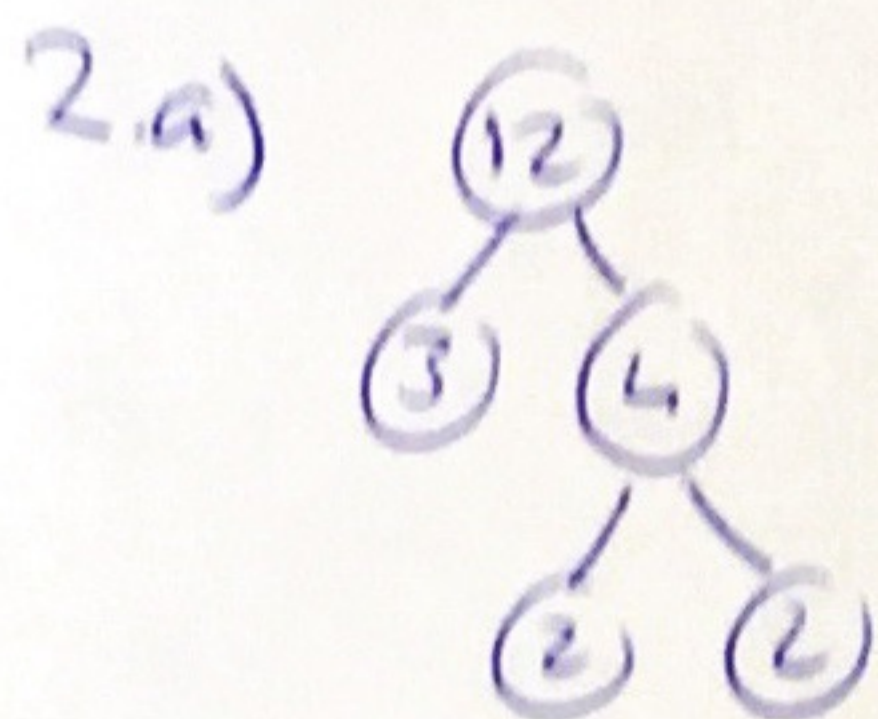
2. a) 1, 2, 4, 8 b) 1, 2, 4, 5, 10, 20 c) H.C.F = 4

3 a) 1, 3, 5, 15 b) 1, 3, 5, 9, 15, 45 c) H.C.F = 15

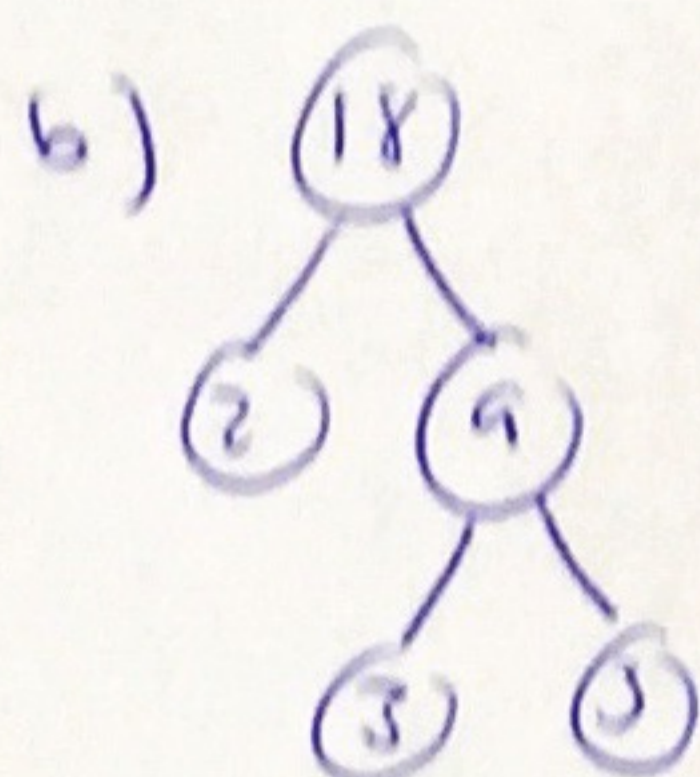
4a) H.C.F = 2 b) H.C.F = 4 c) H.C.F = 12 d) H.C.F = 6

Ex 5

1. a) Yes b) No c) Yes d) No e) No f) Yes g) No h) Yes



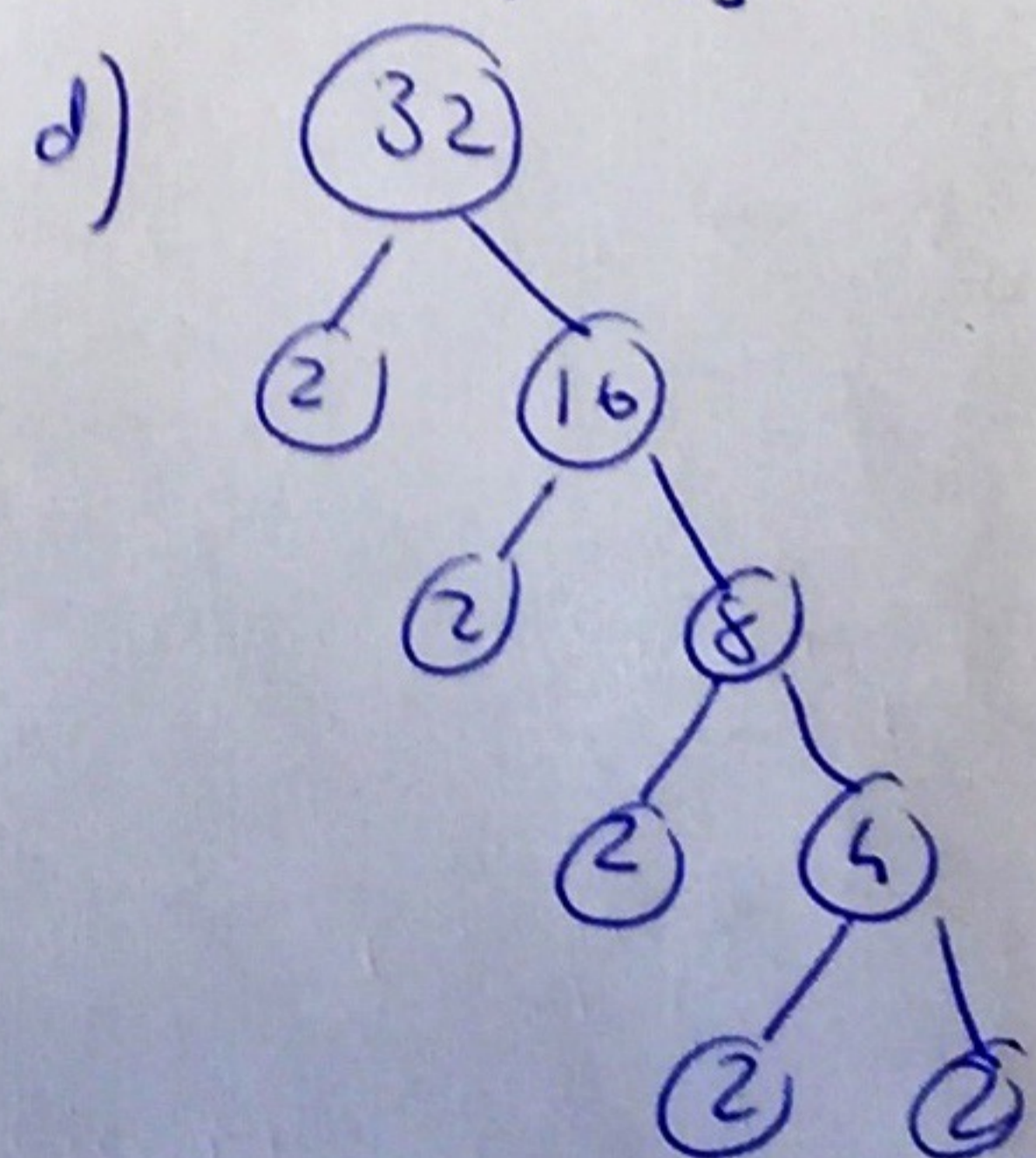
$$12 = 3 \times 2 \times 2$$



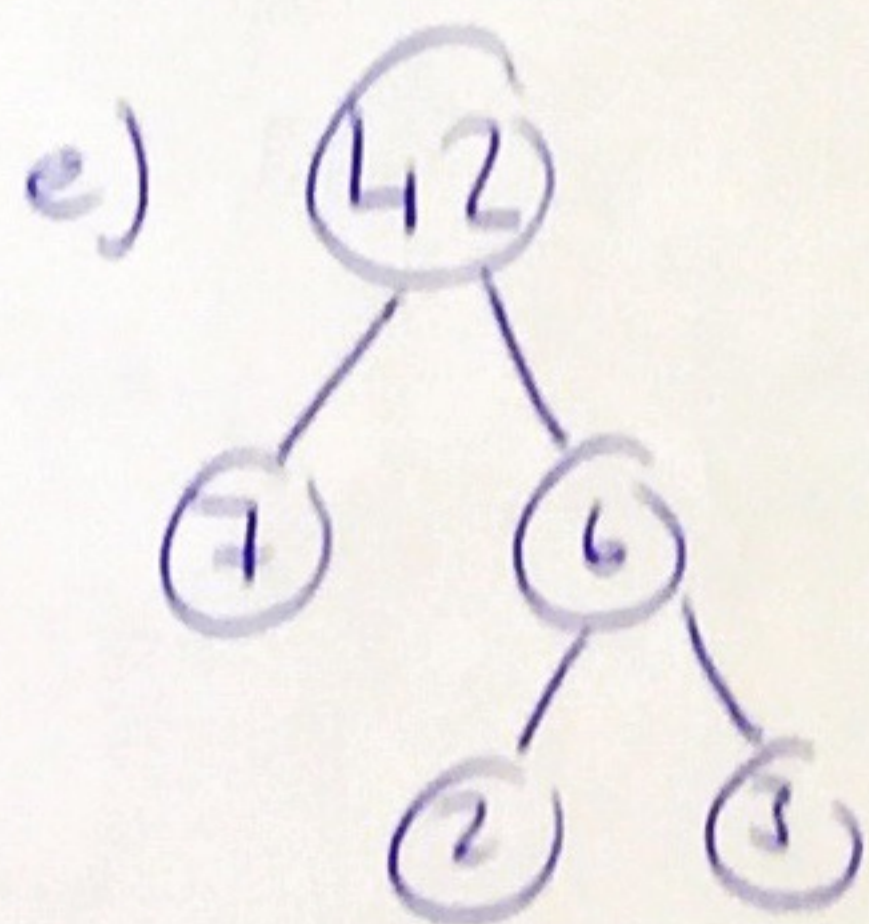
$$18 = 2 \times 3 \times 3$$



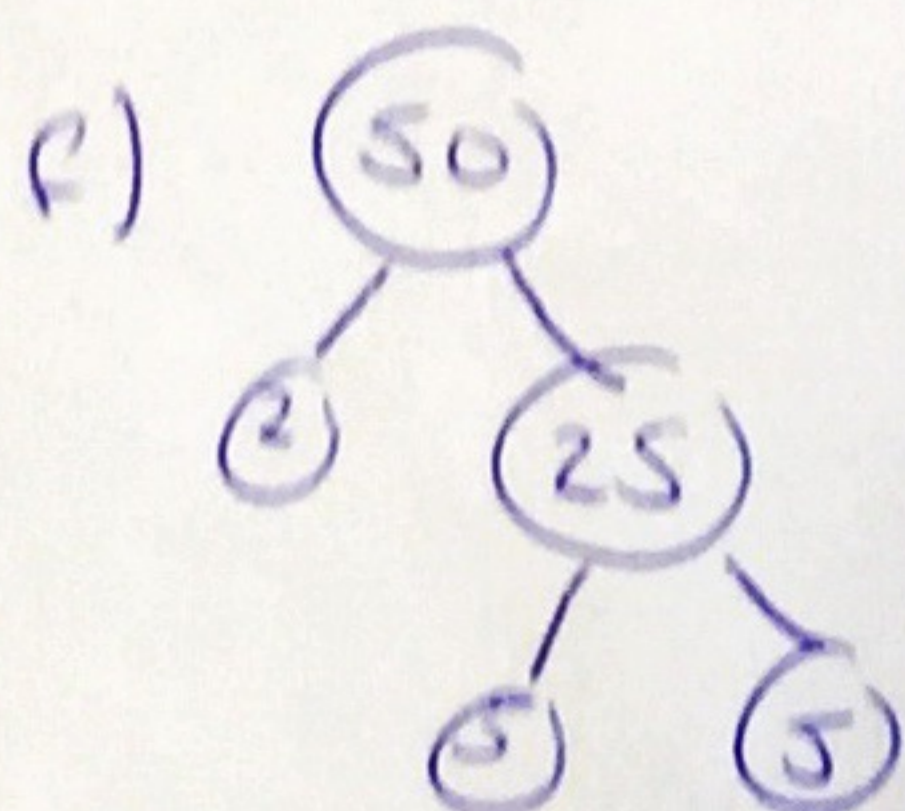
$$28 = 2 \times 2 \times 7$$



$$32 = 2 \times 2 \times 2 \times 2 \times 2$$



$$42 = 7 \times 2 \times 3$$



$$50 = 2 \times 5 \times 5$$

Ex 6

1. a) 37 b) 3 c) 9 d) 58 e) 6 f) 30 g) 5 h) 19

i) 14 j) 20 k) 24 l) 4 m) 0 n) 5 o) 6 p) 14

q) 36 r) 132 s) 3 t) 24 u) -33 v) 1.888..... w) -11

x) 11 y) 44

2. a) $5 \times 6 + 7 = 37$

b) $5 + 6 \times 7 = 47$

c) $15 + 8 \times 9 = 87$

d) $15 \times 8 + 9 = 129$

e) $15 \times 8 - 9 = 111$

f) $15 \div 5 + 3 = 6$

g) $5 - 24 \div 6 = 1$

h) $19 \div 19 + 7 = 8$

i) $4 \times 4 + 7 \times 2 = 30$

3. a) $2 \times (3 + 7) = 20$

b) $(13 - 2) \times 5 = 55$

c) $7 - (4 - 1) = 4$

d) $36 \div (2 \times 3) + 4 = 10$

Ex 5

1. 1 2. -7 3. -14 4. -54 5. 23 6. 2 7. -9
8. 32 9. -13 10. -17 11. -9 12. -46 13. -65
14. 6 15. -22.

ALGEBRA REVISION

Ex 1

- 1a) $13y + 60x$ b) $4d + 4e$ c) $2f + 2$ d) $3g - 3h$
e) $2a - 3b$ f) $5x + 11y + 1z$ g) $2p - 5$ h) $6q - 6p - 1$

Ex 2

- 1a) $20c + 8$ b) $5y + 10$ c) $8b + 24$ d) $9c + 45$ e) $3p + 24$
f) $4a - 8$ g) $7m - 21$ h) $2k - 12$ i) $10y + 40$ j) $12c + 6$
k) $8p + 12$ l) $18g - 9$ m) $30 - 18d$ n) $3f - 12r$ o) $-5e + 40$
p) $-7h - 21$ q) $-6r - 15$ r) $-24f + 16$ s) $-12 + 8d$ t) $-9 - 18a$

Ex 3

1. a) $2(q+4) + 3$
 $= 2q + 8 + 3$
 $= 2q + 11$
b) $3(e+1) + 6$
 $= 3e + 3 + 6$
 $= 3e + 9$
c) $5(t+4) + 2$
 $= 5t + 20 + 2$
 $= 5t + 22$
d) $6(u+2) - 7$
 $= 6u + 12 - 7$
 $= 6u + 5$
e) $4(p+2) - 7$
 $= 4p + 8 - 7$
 $= 4p + 1$
f) $80v + 10(7u+n)$
 $= 80v + 70u + 10n$
 $= 150v + 10n$
g) $12 - 2(x-5)$
 $= 12 - 2x + 10$
 $= 22 - 2x$

$$2. a) 3(m+2) + 4(m+1)$$

$$= 3m + 6 + 4m + 4$$

$$= 7m + 10$$

$$b) 5(b+2) + 2(b+4)$$

$$= 5b + 10 + 2b + 8$$

$$= 7b + 18$$

$$c) 8(c+1) + 3(c+6)$$

$$= 8c + 8 + 3c + 18$$

$$= 11c + 26$$

$$d) 2(8t-2) + 5(2t+4)$$

$$= 16t - 4 + 10t + 20$$

$$= 26t + 16$$

$$e) 6(4-5e) + 7(2+4e)$$

$$= 24 - 30e + 14 + 28e$$

$$= 38 - 2e$$

$$f) 4(2x+1) - 3(x+2)$$

$$= 8x + 4 - 3x - 6$$

$$= 5x - 2$$

$$g) 9(x+1) - 6(x-2)$$

$$= 9x + 9 - 6x + 12$$

$$= 3x + 21$$

$$h) x(8x-2) - 2(3x-8)$$

$$= 8x^2 - 2x - 6x + 16$$

$$= 8x^2 - 8x + 16$$

6x4

$$1a) x = 6$$

$$b) x = 3$$

$$c) x = -1$$

$$d) x = 5$$

$$e) x = \frac{1}{2} \text{ or } 0.5$$

$$f) x = \frac{2}{3}$$

$$g) x = 5$$

$$h) x = 5$$

$$i) x = -9$$

$$j) x = -3$$

$$k) x = -2$$

$$l) x = -\frac{1}{4} \text{ or } -0.25$$

$$m) x = -4$$

$$n) x = 4$$

$$o) x = 5$$

$$p) x = 3$$

$$q) y = 5$$

$$r) x = -8$$

$$s) x = -3$$

$$t) x = -5$$

$$u) x = 2$$

$$v) x = \frac{10}{3}$$

$$w) m = 4$$

$$x) g = \frac{3}{2}$$

$$y) x = -1$$

$$z) d = -5$$

FRACTIONS

Exercise 1

1. a) $\frac{2}{4} = \frac{1}{2}$

b) $\frac{2}{3}$

c) $\frac{4}{6} = \frac{2}{3}$

d) $\frac{4}{8} = \frac{1}{2}$

e) $\frac{6}{10} = \frac{3}{5}$

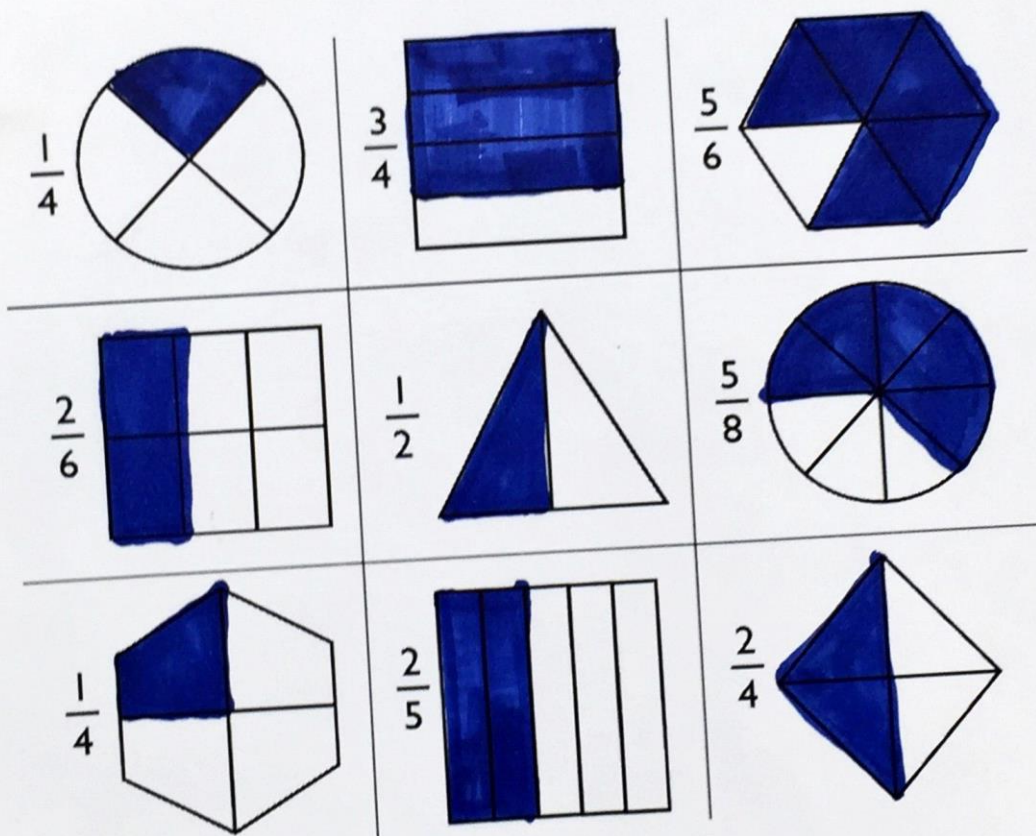
f) $\frac{1}{4}$

g) $\frac{2}{6} = \frac{1}{3}$

h) $\frac{3}{4}$

i) $\frac{2}{4} = \frac{1}{2}$

2.



Exercise 2

$$1. a) \frac{9}{18} = \frac{1}{2} \quad b) \frac{4}{12} = \frac{1}{3} \quad c) \frac{3}{15} = \frac{1}{5} \quad d) \frac{12}{18} = \frac{2}{3} \quad e) \frac{6}{8} = \frac{3}{4}$$

$$f) \frac{14}{35} = \frac{2}{5} \quad g) \frac{36}{42} = \frac{6}{7}$$

$$2. a) \frac{1}{4} = \frac{\boxed{3}}{12} \quad b) \frac{5}{7} = \frac{25}{\boxed{35}} \quad c) \frac{2}{3} = \frac{\boxed{12}}{18}$$

$$d) \frac{7}{\boxed{8}} = \frac{21}{24} \quad e) \frac{\boxed{3}}{4} = \frac{24}{32}$$

Exercise 3

$$a) \frac{1}{4}, \frac{3}{8}, \frac{4}{8}, \frac{1}{2}, \frac{3}{4} \quad b) \frac{2}{5}, \frac{1}{2}, \frac{6}{10}, \frac{3}{5}, \frac{2}{2}$$

$$c) \frac{1}{3}, \frac{5}{12}, \frac{1}{2}, \frac{4}{6}, \frac{3}{4} \quad d) \frac{1}{4}, \frac{1}{2}, \frac{2}{3}, \frac{5}{6}, \frac{7}{8}$$

$$e) \frac{1}{4}, \frac{2}{5}, \frac{1}{2}, \frac{6}{10}, \frac{3}{4} \quad f) \frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{2}{3}, \frac{5}{6}$$

$$g) \frac{1}{4}, \frac{2}{6}, \frac{5}{12}, \frac{2}{3}, \frac{7}{9} \quad h) \frac{2}{7}, \frac{2}{4}, \frac{5}{8}, \frac{11}{14}, \frac{3}{2}$$

Exercise 4

a) $\frac{1}{3}$ of 18 = 6 b) $\frac{1}{4}$ of 16 = 4 c) $\frac{1}{5}$ of 35 = 7

d) $\frac{1}{2}$ of 20 = 10 e) $\frac{1}{7}$ of 49 = 7 f) $\frac{1}{4}$ of 8 = 2

g) $\frac{1}{10}$ of 180 = 18 h) $\frac{1}{11}$ of 88 = 8 i) $\frac{1}{9}$ of 63 = 7

2a) $\frac{1}{3}$ of 21m = 7m b) $\frac{1}{4}$ of £24 = £6 c) $\frac{1}{5}$ of \$25 = \$5

d) $\frac{1}{6}$ of 36cm = 6cm e) $\frac{1}{3}$ of 30km = 10km f) $\frac{1}{8}$ of £32 = £4

3. a) $\frac{2}{3}$ of 21m = 14m b) $\frac{3}{4}$ of £24 = £18 c) $\frac{4}{5}$ of \$25 = \$20

d) $\frac{5}{6}$ of 36cm = 30cm e) $\frac{2}{3}$ of 30km = 20km f) $\frac{3}{8}$ of £32 = £12

g) $\frac{2}{5}$ of 35m = 14m h) $\frac{7}{8}$ of £40 = £35 i) $\frac{2}{9}$ of £72 = £16

Exercise 5

1. a) $\frac{3}{7} + \frac{3}{7} = \frac{6}{7}$ b) $\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$ c) $\frac{2}{9} + \frac{3}{9} = \frac{5}{9}$ d) $\frac{2}{8} - \frac{1}{8} = \frac{1}{8}$

e) $\frac{1}{7} + \frac{3}{7} = \frac{4}{7}$ f) $\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$ g) $\frac{3}{8} + \frac{3}{8} = \frac{6}{8} = \frac{3}{4}$

h) $\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$ i) $\frac{3}{10} + \frac{5}{10} = \frac{8}{10} = \frac{4}{5}$

j) $\frac{7}{12} - \frac{4}{12} = \frac{3}{12} = \frac{1}{4}$