

## Solutions

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Award method and answer marks as indicated; accept equivalent correct methods.

### 2.1

- The common factor is 12:  $F = (24 \div 12)/(36 \div 12) = \mathbf{2/3}$ .

### 2.2

- $F = (2 \times 5 + 2)/5 = \mathbf{12/5}$ ;  $D = 12 \div 5 = \mathbf{2.4}$ .

### 2.3

- $F = 32/100 = \mathbf{8/25}$ ;  $p = 0.32 \times 100 = \mathbf{32\%}$ .

### 2.4

- $D = 7 \div 8 = \mathbf{0.875}$ ;  $p = 0.875 \times 100 = \mathbf{87.5\%}$ .

### 3.1

(a)

- $V = (1 \times 5 + 1)/5 = 6/5 = \mathbf{1.2}$  litres.

(b)

- $V = 3/10$  litre, already simplified:  $3/10$  **litre**.

(c)

- $p = (0.3/1.2) \times 100 = \mathbf{25\%}$ .

### 3.2

(a)

- Use  $f = \text{serving/whole} = 0.225/1.5 = \mathbf{3/20}$ .
- Percentage  $p = 100f = \mathbf{15\%}$ .

(b)

- Six servings use  $f_u = 6(3/20) = 9/10$ , so the fraction left is  $f_r = 1 - 9/10 = \mathbf{1/10}$ .
- Volume  $V = 1.5(1/10) = \mathbf{0.15}$  litres.