

1. Starting at  $\frac{1}{2}$ , write a sequence of eight numbers counting by:

- a) One half
- b) One quarter
- c) One tenth
- d) One twelfth

*One half*

$$\frac{1}{2}, 1, 1\frac{1}{2}, 2, 2\frac{1}{2}, 3, 3\frac{1}{2}, 4$$

*One quarter*

$$\frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2, 2\frac{1}{4}$$

*One tenth*

$$\frac{1}{2}, \frac{6}{10}, \frac{7}{10}, \frac{8}{10}, \frac{9}{10}, 1, 1\frac{1}{10}, 1\frac{2}{10}$$

*One twelfth*

$$\frac{1}{2}, \frac{7}{12}, \frac{8}{12}, \frac{9}{12}, \frac{10}{12}, \frac{11}{12}, 1, 1\frac{1}{12}$$

2. Find equivalent fractions for:

- a)  $\frac{1}{2}$
- b)  $\frac{1}{3}$
- c)  $\frac{1}{4}$

**SAMPLE ANSWERS**

$$\frac{1}{2} = \frac{36}{72}, \frac{600}{1200}, \frac{10}{20}$$

$$\frac{1}{3} = \frac{3}{9}, \frac{8}{24}, \frac{22}{66}$$

$$1 = \frac{75}{75} = \frac{75}{300}, \frac{6}{24}, \frac{15}{60}$$

3. Show how you can calculate:

- a)  $2 \times \frac{3}{4}$
- b)  $\frac{1}{2} \div \frac{1}{12}$
- c)  $2 - \frac{4}{5}$

d)  $\frac{2}{3} + \frac{4}{3}$

**SAMPLE STRATEGIES**

a)

$$2 \times \frac{3}{4} =$$

Same as  $\frac{3}{4} + \frac{3}{4}$

$$\frac{6}{4} = 1 \frac{2}{4}$$

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

b)

$$\frac{1}{2} \div \frac{1}{12}$$

Relate to multiplication

$$6 \times \frac{1}{12} = \frac{1}{2} \text{ so } \frac{1}{2} \div \frac{1}{12} = \mathbf{6}$$

c)

$$2 - \frac{4}{5}$$

Change two into fifths

$$1 = \frac{5}{5} \text{ so } 2 = \frac{10}{5}$$

$$\frac{10}{5} - \frac{4}{5} = \frac{6}{5} \text{ or } \mathbf{1 \frac{1}{5}}$$

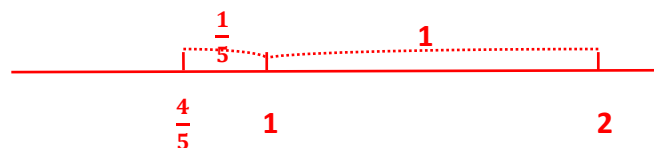
Or you can count up to find the difference

This is demonstrated on the number line below

Start at  $\frac{4}{5}$ ,

Jump  $\frac{1}{5}$  forward to get to 1, then jump another 1 to get to 2

The difference is  $1 \frac{1}{5}$



$$d) \frac{2}{3} + \frac{4}{3}$$

$$\frac{2}{3} + \frac{4}{3} = \frac{6}{3}$$

$$\frac{6}{3} = 2$$

#### 4. Ordering fractions

Place the following numbers on a number line:

$$\frac{1}{2} \quad 2 \frac{3}{4} \quad \frac{5}{8} \quad 1 \frac{1}{4} \quad 1 \quad 1 \frac{2}{3} \quad \frac{1}{3} \quad 1 \frac{1}{2}$$

