

## Q1

1a

Multiply the tops (numerators), and multiply the bottoms (denominators)

$$\frac{1}{7} \times \frac{2}{3} = \frac{1 \times 2}{7 \times 3}$$

$$\frac{2}{21} \quad [1]$$

1b

Rewrite both fractions with a common denominator, in this case 15, as both 5 and 3 are factors of 15

$$\frac{3}{5} = \frac{3 \times 3}{5 \times 3} = \frac{9}{15}$$

$$\frac{1}{3} = \frac{1 \times 5}{3 \times 5} = \frac{5}{15}$$

*Rewriting with common denominator [1]*

Perform the calculation using the fractions with a common denominator

$$\frac{9}{15} - \frac{5}{15}$$

$$\frac{4}{15} \quad [1]$$

## Q2

2

Rewrite the mixed number as an improper fraction

$$3\frac{3}{4} = \frac{12}{4} + \frac{3}{4} = \frac{15}{4}$$

*Writing as improper fraction [1]*

Multiply the fractions, we can multiply the numerators, and multiply the denominators

$$\frac{15}{4} \times \frac{7}{9} = \frac{105}{36}$$

Simplify the answer, 3 is a factor of both 105 and 36

$$\frac{105}{36} = \frac{35}{12}$$

*Answer as an improper fraction [1]*

Rewrite as a mixed number

$$\frac{35}{12} = \frac{24}{12} + \frac{11}{12} = 2 + \frac{11}{12}$$

$$2\frac{11}{12} \quad [1]$$

## Q3

3

Before finding the fraction, make sure to use the same units for both values, we will use pence (100p=£1)

$$£1.50 = 150p$$

Writing £1.50 as a fraction of 60p

$$\frac{150}{60}$$

Simplifying

$$\frac{150}{60} = \frac{15}{6} = \frac{5}{2}$$

So the answer is the fourth option,  $\frac{5}{2}$  [1]

£1.50 is larger than 60p, so the first two options,  $\frac{2}{5}$  and  $\frac{1}{4}$  can be discounted

The third option,  $\frac{4}{1}$  can be discounted as £1.50 is not 4 times 60p

#### Q4

4

Convert the improper fractions into mixed numbers

$$\frac{15}{4} = \frac{12}{4} + \frac{3}{4} = 3\frac{3}{4}$$

$$\frac{29}{8} = \frac{24}{8} + \frac{5}{8} = 3\frac{5}{8}$$

$$\frac{31}{8} = \frac{24}{8} + \frac{7}{8} = 3\frac{7}{8}$$

$$\frac{15}{8} = \frac{8}{8} + \frac{7}{8} = 1\frac{7}{8}$$

From this, the **fourth option can be eliminated** as it is between 1 and 2, not between 3 and 4

The **first option can be eliminated** as  $\frac{3}{4} = 0.75$ , not 0.875

We just need to decide if  $\frac{5}{8}$  or  $\frac{7}{8}$  is equivalent to 0.875

$\frac{5}{8}$  is only slightly more than half, whereas  $\frac{7}{8}$  is much closer to 1 than half

So the answer is the third option,  $\frac{31}{8}$  [1]

We can also check this:  $\frac{7}{8} = \frac{3.5}{4} = \frac{1.75}{2} = 0.875$

#### Q5-6

5

Write \$24.60 as a fraction out of \$2870 by writing 24.60 as the numerator and 2870 as the denominator.

$$\frac{24.60}{2870}$$

Type into your calculator and it will simplify it for you.

$$\frac{3}{350} \quad \text{[ ]}$$

6

"Of" means multiply

$$\frac{7}{11} \times 198$$

Use a calculator to find this value

126 [ ]