M1.

Alternative method 1

1700 ÷ (10 + 10 + 10 + 20)
or
1700 ÷ 50 or 50x = 1700
or
34

oe

M1

3 × their 34

M1dep

102

A1

Alternative method 2

Ratio 30 : 20 seen or implied
oe

M1

1700 ÷ 5 × 3 or 1020
or 1700 ÷ 5 × 2 or 680
oe

M1dep

102

A1

Alternative method 3

Chooses 10p and 20p coins in the ratio 3 : 1 and works out their total value

M1

Builds up to £10.20 and £6.80

M1dep

102

A1

[3]

M2.

(a) $\dfrac{1}{3.5}$

M1

$\dfrac{2}{7}$

oe fraction

A1

(b) **Alternative method 1**

120 000 × (1 + 2.5)

M1

420 000

A1

Alternative method 2

120 000 ÷ $\dfrac{\text{their 2}}{\text{their 7}}$

or

120 000 ÷ $\dfrac{\text{their 1}}{\text{their 3.5}}$

where fraction in (a) is of the form $\dfrac{m}{n}$
m > 1

where fraction in (a) is of the form $\dfrac{1}{n}$

M1

420 000

ft their answer from part (a)

A1ft

[4]

M3.

(a)   720 ÷ 6 or 120

720 ÷ 6 × 5 or 600

M1

600 and 120

A1

Additional Guidance
120 and 600 (order reversed)

M1A0

(b)   135 + 70 + 35   or   240

M1

their 240 ÷ 6   or   40

M1dep

2 × *their* 40   or   80

M1dep

10

ignore fw

A1

Additional Guidance
Gemma 10, Beth 5, answer 15 scores full marks

M1M1M1A1

(120 and) 80 and 40 may be written next to the 3 : 2 : 1 in the question

M1M1M1A0

Beware of 10 from incorrect working
e.g. 135 ÷ 3 = 45, 70 ÷ 2 = 35, 35 ÷ 1 = 35, answer 10 scores 0

M0M0M0A0

[6]

M4.

7 : 5

B1 *Any ratio equivalent to 7 : 5*
or   5 : 7
or   any ratio correctly simplified

B2

[2]

M5.
   (a)   25(%) : 75(%)

or $\frac{1}{4} : \frac{3}{4}$

            oe

                        M1

1 : 3

            SC1   3 : 1

                        A1

   (b)   19.5 ÷ 3

or 26 ÷ 4

or 6.5

            oe
            19.5 ÷ 75 × 25

                        M1

6.50

            Correct money notation

                        A1

Additional Guidance
Condone 6.50p on answer line provided £ sign is not crossed out

                        M1A1
                        [4]

M6.
Alternative method 1

500 × 10 or 5000

                        M1

their 5000 ÷ 1500

            or repeated addition of 1500 (at least 3)
            Allow their 5000 from 500 × 10
            or 500 × 11

                        M1

3⅓ or 3.3 (..)

> *4500 or 6000*
>
> *3⅓ or 3.3(..) can be implied by an an answer of 4 from correct working*

A1

4 (bottles)

> *ft their fraction or decimal answer rounded up to nearest integer.*
>
> *SC2 for 4 with no working or unsupported*

B1 ft

Alternative method 2

1500 ÷ 10 or 150

> *1 bottle of water is enough for 150 ml apple juice*

M1

500 ÷ their 150

> *or repeated addition of 150 (at least 3)*
>
> *Allow their 150 from 1500 ÷ 10*
>
> *or 1500 ÷ 11*

M1

3⅓ or 3.3 (..)

> *450 or 600*
>
> *3⅓ or 3.3(..) can be implied by an an answer of 4 from correct working*

A1

4 (bottles)

> *ft their fraction or decimal answer rounded up to nearest integer.*
>
> *SC2 for 4 with no working or unsupported*

B1 ft

[4]

M7.(a)   300 ÷ 4 or 75

or 300 × 1.5

2 cakes = 300 ÷ 2 or 2 cakes = 150

or

12 cakes = 300 × 3 or 12 cakes = 900
oe
any correct scaling

M1

450

A1

(b)   (1.5 kg =) 1500 (g)

or 300 g = 0.3 kg or 150 g = 0.15 kg
seen or implied

B1

their 1500 ÷ their 75

or 6 (+) 6 (+) 6 (+) 2

or 5 × 4 or 4 (+) 4 (+) 4 (+) 4 (+) 4
oe

M1

20
SC2 14 cakes from 1050g

A1

Alternative method

(1.5 kg =) 1500 (g)

or 300 g = 0.3 kg or 150 g = 0.15 kg

seen or implied

B1

Build up method to total number of cakes from their 1500 with one error

build up values if correct:
4 cakes = 300(g)
8 cakes = 600(g)
12 cakes = 900(g)
16 cakes = 1200(g)

M1

20

SC2 14 cakes from 1050g

A1

Additional Guidance

1500(g)
4 cakes = 300(g)
8 cakes = 600(g)
16 cakes = 900(g) (one error)
24 cakes = 1500(g)

Answer 24 cakes   is B1M1A0

1000(g) uses incorrect total of flour (misread)
4 cakes = 300(g)
8 cakes = 600(g)
12 cakes = 900(g)

Answer 12 cakes (one error − should be 13 cakes)   is B0M1A0

[5]

M8. Packs of 6/Packs of 2

1.38 × 3

oe
4.17 ÷ 3

M1

4.14

oe

1.39

A1

2 pack identified

Strand (iii)
ft their values provided method mark has been awarded

Q1ft

Alternative Method 1   Scaling (multiples of 6)

1.38 × 6 **and** 4.17 × 2

oe

M1

8.28 **and** 8.34

oe

A1

2 pack identified

Strand (iii)
ft their values provided method mark has been awarded

Q1ft

Alternative Method 2   Price per roll

1.38 ÷ 2 **and** 4.17 ÷ 6

oe

M1

0.69 **and** 0.695

oe
*Accept 0.69 **and** 0.7(0)*

A1

2 pack identified

Strand (iii)
ft their values provided method mark has been awarded

Q1ft

Alternative Method 3   Rolls per £

2 ÷ 1.38 **and** 6 ÷ 4.17

M1

1.44... **and** 1.43...

A1

2 pack identified

Strand (iii)
ft their values provided method mark has been awarded

Q1ft

Alternative Method 4   Comparing proportions

4.17 ÷ 1.38 and 6 ÷ 2
1.38 ÷ 4.17 and 2 ÷ 6

M1

3.02 and 3
0.330... or 0.331 and 0.333...

A1

2 pack identified

Strand (iii)
ft their values provided method mark has been awarded

Q1ft

Additional Guidance

Ignore any units throughout, e.g. 0.69p and 0.695p

Students can scale up to any multiple of 6, e.g. 12, 18, 24, etc.

)

Scale up to 18:
1.38 × 9 and 4.17 × 3

M1

12.42 and 12.51

A1

2 pack identified

Q1

Scale up to 24:
1.38 × 12 and 4.17 × 4

M1

16.56 and 16.68

A1

2 pack identified

Q1

Alternative method 5:
1.38 × 2 = 2.76 and 4.17 − 2.76

M1

1.41

A1

2 pack identified

Q1

The Q mark can be awarded if the candidate has scored M1 and has made a correct comparison from their two values

Pack of 2 identified with no correct working scores no marks

[3]

M9. $\dfrac{4860}{5 + 4 + 3}$ or 405

or $\dfrac{5}{12}$ or $\dfrac{4}{12}$ or $\dfrac{3}{12}$

M1

2025 or 1620 or 1215

A1

2025 and 1620 and 1215
> *Must be in correct order*

A1

Additional Guidance

ANSWERS MUST BE IN THE CORRECT ORDER

BEWARE:
4860/5 = 972, 4860/4 = 1215, 4860/3 = 1620 which gives two correct answers in the wrong order, so answers must be from correct working (972 flags up an incorrect method)

M0A0A0

[3]

M10.
    (a)   280 ÷ 4

M1

        Kiwi = 70

A1

        Yogurt = 210
> *ft 280 − their 70. Allow their 70 × 3 if M1 awarded*
> *SC1 for 35 and 105*

A1ft

    (b) $72 \times \dfrac{30}{100}$ (= 21.6)

M1

        72 + their 21.6 or 22

M1Dep

93.6 or 94

A1

94 pence   or   £0.94
                Strand (i) − Correct money notation
                ft their 93.6 rounded to nearest integer

Q1

Alternative
1.3 seen

M1

72×1.3

M1

93.6 or 94

A1

94 pence   or   £0.94
                Strand (i) − Correct money notation
                ft their 93.6 rounded to nearest integer
                SC3 for 93p with no working

Q1
[7]

M11.
    (a) $280 \div 4$

M1

Kiwi = 70

A1

Yogurt = 210
                ft 280 − their 70.
                Allow their 70 × 3 if M1 awarded
                SC1 for 35 and 105

A1ft

    (b) $\dfrac{1}{4 + 1 + 3} \times 100$

oe $\dfrac{70}{280 + 70 + 210} \times 100$

ft their weights

M1

12.5

ft their weights

A1 ft

(c) (i) $72 \times \dfrac{30}{100}$ (= 21.6)
oe

M1

72 + their 21.6 or 22

M1 Dep

93.6

A1

94 pence or £ 0.94
Strand (i) − Correct money notation
ft their 93.6 rounded to nearest integer

Q1

Alternative
1.3 seen

M1

72 × 1.3

M1

93.6 or 94

A1

94 pence or £0.94
Strand (i) − Correct money notation ft their 93.6 rounded to
nearest integer
SC3 for 93p with no working

Q1

(ii)   0.4 × 15 (= 6)
78 implies this mark

M1

$\dfrac{\text{their } 6}{72} \times 100$ or $\dfrac{78}{72} \times 100$

4

$\dfrac{15}{72}$ × 100 (= 20.83) and

$\dfrac{15+6}{72}$ × 100 (= 29.16)

M1

8.3….

A1

Organised response

Strand (ii) − present a logical mathematical argument with key steps clearly shown

Dep on M2 awarded

Q1

[13]