M1. 50 (portions)

[1]

M2. Award **TWO** marks for the correct answer of 25p **OR** £0.25 **OR** 25 pence.

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg 600 ÷ 24 = wrong answer.

> *Accept £0 25 **OR** £0.25p **OR** £0 25p **OR** 25 **OR** 0.25 **OR** £0-25.*
> *Calculation must be performed for the award of **ONE** mark.*

Up to 2

[2]

M3. 404.09 ÷ 47.54 = 8.5

[1]

M4. Award **TWO** marks for the correct answer of 42

If the answer is incorrect award **ONE** mark for evidence of appropriate working containing no more than one arithmetic error, eg

• long division algorithm

wrong answer

```
    42
22) 924
    880
    ___
     44
    -44
    ___
      0
```

*Calculation must be performed for the award of **ONE** mark.*

- short division algorithm

wrong answer

$22\overline{)924}$

> *Short division methods must be supported by evidence of appropriate carrying figures to indicate use of a division algorithm.*

- repeated addition / subtraction methods

```
  924
− 440        20 × 22
  484
− 440        20 × 22
   44
−  44         2 × 22
    0      wrong answer
```

> ***No mark** is awarded for repeated addition / subtraction the wrong number of times.*

- factor / multiple methods, eg

```
22 × 10 = 220
       ×   4
22 × 40 = 880
       +  44
          924
924 ÷ 22 = wrong answer
```

up to 2

[2]

M5. 20

[1]

M6.   20

<div align="right">

1

</div>

33.125

Accept equivalent fractions or decimals

<div align="right">

1
U1

</div>

<div align="right">

[2]

</div>

M7.   Award **TWO** marks for the correct answer of 17

If the answer is incorrect, award **ONE** mark for evidence of appropriate working which contains no more than **ONE** arithmetical error, eg:

•   repeated addition/subtraction methods, eg

```
  544
− 320    10 × 32
  224
− 160    5 × 32
   64
 − 64    2 × 32
    0   wrong answer
```

•   repeated halving, eg

       544 ÷ 2 = 272
       272 ÷ 2 = 136
       136 ÷ 2 = 68
         68 ÷ 2 = 34
         34 ÷ 2 = wrong answer

•   fraction method, eg

$$\frac{544}{32} = \frac{136}{8} = \frac{34}{2} = \text{wrong answer}$$

•   short division algorithm

wrong answer
_____

```
       _____
32  |5    4²²4
```

• long division algorithm

wrong answer

```
      _____
32  | 544
       320
      _____
       224
      −224
      _____
         0
```

*In all cases accept follow-through of **ONE** error in working.*

*Working must be carried through to reach an answer for the award of **ONE** mark.*

***Do not** award any marks if the final answer is missing.*

Variations on algorithms are acceptable, provided they represent a viable and complete method.
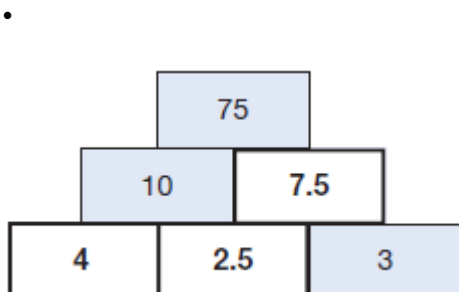
***No mark** is awarded for repeated addition/subtraction/halving the wrong number of times.*

Short division methods must be supported by evidence of appropriate carrying figures to indicate use of a division algorithm.

Up to 2

[2]

M8. Gives the three correct numbers in their correct positions, ie:

•

Accept unambiguous indication

Accept equivalent fractions, eg:

• $7\dfrac{5}{10}$ *for 7.5*

2

or

Gives two correct numbers in their correct positions

1

[2]

M9. Award **TWO** marks for the correct answer of 34

If the answer is incorrect, award **ONE** mark for evidence of appropriate working which contains no more than **ONE** arithmetical error, eg:

- repeated addition/subtraction methods, eg

$$
\begin{array}{ll}
816 & \\
\underline{-240} & 10 \times 24 \\
576 & \\
\underline{-240} & 10 \times 24 \\
336 & \\
\underline{-240} & 10 \times 24 \\
96 & \\
\underline{-48} & 2 \times 24 \\
48 & \\
\underline{-48} & 2 \times 24 \\
0 & \text{wrong answer}
\end{array}
$$

- factor/multiple methods, eg

$816 \div 8 = 102$

$102 \div 3 = $ wrong answer

- short division algorithm

wrong answer

$24\overline{)81^96}$

- long division algorithm

wrong answer

$24\overline{)816}$

$\underline{-720}$
96

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$$-\underline{96}$$
$$0$$

- fraction method

$$\frac{816}{24} = \frac{408}{12} = \frac{204}{6} =$$ wrong answer

*In all cases accept follow-through of **ONE** error in working.*

*Working must be carried through to reach an answer for the award of **ONE** mark.*

Variations on algorithms are acceptable, provided they represent a viable and complete method.

***Do not** award any marks if the final answer is missing.*

***No mark** is awarded for repeated addition/ subtraction the wrong number of times.*

Short division methods must be supported by evidence of appropriate carrying figures to indicate use of a division algorithm.

Up to 2

[2]

E2.   No comment available.

E3.   This question is designed to assess children's reasoning about related division facts in which the calculator is the most appropriate tool.

Eighty-three per cent of children at level 5 gave the correct answer, as did half of those at level 4 and 20% at level 3. The question was omitted by 45% of children at level 3 and by 20% at level 4.

At all levels incorrect responses were varied, but the most common was to multiply 404.09 by 8.5, rather than divide, to give 3434.7. This error was made by nearly 10% of children working at level 4.

E4.   This question assesses children's ability to divide a three-digit integer by a two-digit integer. Children may record their working as an opportunity to gain partial credit in this two-mark question.

Over 70% of children at level 5 were awarded two marks for reaching the correct answer, as were 30% of children at level 4. Those children who showed a complete method for dividing 924 by 22 but made an arithmetical error were awarded one mark. This was the case for about 5% of children at level 4 and at level 3. This question was difficult for children at level 3 with only 5% gaining any marks.

Incorrect responses were varied and no common trends were seen.

Of those children who recorded a method, the most common approach was to use a standard short division method. This was used by over half of children at level 5, one-third of children at level 4 and nearly 20% of those at level 3. Other common methods used by children at level 5 were a standard long division method, used by 20% of these children, and subtracting multiples of 22, used by 10%. Of those children who used a standard long division method, 43% of children at level 4 and 92% of those at level 5 gave a correct answer. Children at levels 4 and 5 who used a standard short division method, 51% and

86% respectively gave a correct answer. Other informal methods were more common at levels 3 and 4.

Two marks awarded for fully correct answer

E5.   **Target Level: 5**

Curriculum Coverage (POS ref: Ma2/3a, 3h)

This question assesses children's understanding of division facts and place value in a missing number calculation.

Performance

Almost 80% of children working at level 5 gave the correct answer, as did 30% of those working at level 4.

Common errors and misconceptions

-   Five per cent of children working at level 5 gave an answer of 125 or 1250, suggesting an attempt at multiplying 2.5 by 50.

Resource currently unavailable.