

**National Numeracy Tests**

**PROCEDURAL**

**9EP15MS**

# **Markscheme**



128934



**Llywodraeth Cymru  
Welsh Government**

## Markscheme

### General marking rules

It is essential that you apply this markscheme, the marking guidance and the general marking rules given below to your own marking, in order for the standardised scores to be valid.

- Incorrect or unacceptable answers are given a mark of 0. No half marks are awarded.
- At the end of each double-page spread of marking, record the total number of marks in the 'total' box in the bottom right-hand corner. Check that the mark recorded does not exceed the maximum number of marks available.
- Once the marking has been completed, add up the total number of marks awarded. This is the total score and should be recorded on the cover of the test booklet and input onto the relevant mark sheet on the school's management information system, together with the details and date of the test taken.
- This data should then be submitted as part of the Welsh National Tests Data Collection (WNTDC). Further details are available from the *National Reading and Numeracy Tests – Test administration handbook 2015* on the Learning Wales website and in *Welsh National Tests Data Collection and reporting arrangements 2014/15* available on the Welsh Government website.
- Markers should record their initials on the cover of the test booklet to assist quality assurance.

### Marking guidance

It is important that the tests are marked accurately. The questions and answers below help to develop a common understanding of how to mark fairly and consistently.

#### *Must learners use the answer boxes?*

Provided there is no ambiguity, learners can respond anywhere on the page. If there is more than one answer, the one in the answer box must be marked, even if incorrect. However, if the incorrect answer is clearly because of a transcription error (e.g. 65 has been copied as 56), mark the answer shown in the working.

#### *Does it matter if the learner writes the answer differently from that shown in the markscheme?*

Numerically equivalent answers (e.g. eight for 8, or two-quarters or 0.5 for half) should be marked as correct unless the markscheme states otherwise.

#### *How should I mark answers involving money?*

Money can be shown in pounds or pence, but a missing zero, e.g. £4.7, should be marked as incorrect unless the markscheme states otherwise.

#### *How should I mark answers involving time?*

In the real world, specific times are shown in a multiplicity of ways so accept, for example, 02:30, 2.30, half past 2, etc. Do not accept 2.3 as this is ambiguous. The same principle should be used for marking time intervals, e.g. for two and a half hours accept 2.5 but not 2.5pm.

### ***What if the method is wrong but the answer is correct?***

Unless the markscheme states otherwise, correct responses should be marked as correct even if the working is incorrect as learners may have started again without showing their revised approach.

### ***What if the learner has shown understanding but has misread information in the question?***

For a two (or more) mark item, if an incorrect answer arises from misreading information given in the question and the question has not become easier as a result, then deduct one mark only. For example, if the two-mark question is  $86 \times 67$  and the learner records  $96 \times 67$  then gives the answer 6432, one mark should be given. In a one-mark question, no marks can be given.

### ***What should I do about crossed-out work?***

Working which has been crossed-out and not replaced can be marked if it is still legible.

### ***What is the difference between a numerical error and a conceptual error?***

A numerical error is one in which a slip is made, e.g. within  $86 \times 67$  the learner works out  $6 \times 7 = 54$  within an otherwise correct response. A conceptual error is a more serious misunderstanding for which no method marks are available, for example if  $86 \times 60$  is recorded as 516 rather than 5160

### ***What if learners use a method that is not shown within the markscheme?***

There can be a wide range of approaches to a question (e.g. long multiplication) and any correct method, however idiosyncratic, is acceptable.

In one-mark questions, the mark should be given for the correct answer, whatever the method used.

In two-mark questions, the correct answer should be given two marks, whatever the method used, unless the markscheme states otherwise. Most two-mark questions give one mark if the answer is incorrect but the learner shows a correct method: a correct method is one that would lead to a correct answer if there were no numerical errors.

## 9EP15 Procedural test: Markscheme

| Q    | Marks | Answer                             | Comments                                     |
|------|-------|------------------------------------|--|
| 1i   | 1m    | 50g                                |  |
| 1ii  | 1m    | 10%                                |  |
| 2    | 1m    | 9 trays                            |  |
| 3    | 1m    | 180                                |  |
| 4    | 1m    | £160                               |  |
| 5    | 1m    | 1005.4                             |  |
| 6    | 1m    | 4.0 0.4 4.00 0.04 0.004            |  |
| 7    | 1m    | $90 \times (4 + 6) \div 2 = 450$   | Do not accept more than one pair of brackets |
| 8    | 1m    | 30                                 |  |
| 9i   | 1m    | £20                                | Accept £19.50 to £20.50 inclusive            |
| 9ii  | 1m    | 160 Canadian dollars               | Accept 156 to 164 Canadian dollars inclusive |
| 10   | 1m    | £35                                |  |
| 11i  | 1m    | 6km                                |  |
| 11ii | 1m    | $1\frac{1}{2}$ hours or equivalent |  |

| Q    | Marks | Answer  | Comments  |  |  |   |  |
|------|-------|---|---|--|--|---|--|
| 12   | 1m    | 3 : 15  |   |  |  |   |  |
| 13i  | 1m    | $\frac{1}{16}$  | Accept 0.0625   |  |  |   |  |
| 13ii | 1m    | $\frac{9}{16}$  | Accept 0.5625   |  |  |   |  |
| 14   | 2m    | 62.8cm  | Accept 63cm   |  |  |   |  |
|      | Or 1m | Shows $3.14 \times 20$ or equivalent  | Accept $\pi \times 20$  |  |  |   |  |
| 15i  | 1m    | 0.06  |   |  |  |   |  |
| 15ii | 1m    | 100   |   |  |  |   |  |
| 16   | 1m    | £31.50  |   |  |  |   |  |
| 17i  | 1m    | $2^7$ or 128  |   |  |  |   |  |
| 17ii | 1m    | $2^3$ or 8  |   |  |  |   |  |
| 18i  | 1m    | $\frac{3}{7}$ or $\frac{6}{14}$   | Do not accept equivalent decimals                             |  |  |   |  |
| 18ii | 2m    | 193 medals  |   |  |  |   |  |
|      | Or 1m | Incorrect answer, but shows a method that would lead to 193 medals if calculated correctly, with not more than one numerical error  | Correct method:<br>$22 + 18 + 15 + 3 \times 14 + 8 \times 12$ |  |  |   |  |
| 19   | 1m    | <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 40px; height: 20px;"></td> <td style="width: 40px; height: 20px;"></td> </tr> <tr> <td style="width: 40px; height: 20px;"></td> <td style="width: 40px; height: 20px; text-align: center;">✓</td> </tr> </table> |   |  |  | ✓ |  |
|      |       |   |   |  |  |   |  |
|      | ✓     |   |   |  |  |   |  |
| 20   | 2m    | 14°F  |   |  |  |   |  |
|      | Or 1m | Shows the value -18   |   |  |  |   |  |

| Q  | Marks | Answer  | Comments  |
|----|-------|---|---|
| 21 | 1m    | 1% 3% 5% 7% 9%  |   |
| 22 | 2m    | $\frac{7}{20}$  | Accept 0.35   |
|    | Or 1m | Shows or implies fractions equivalent to $\frac{1}{10}$ and $\frac{3}{5}$ but with a common denominator | Examples for 1m:<br>$\frac{2}{20}$ and $\frac{12}{20}$ seen<br>$\frac{3\frac{1}{2}}{10}$ seen |
| 23 | 1m    | $\frac{1}{30}$ or equivalent fraction   | Do not accept equivalent decimals   |
| 24 | 2m    | Mean 18 years and 6 months<br>Range 3 years and 3 months  | Both correct for 2m   |
|    | Or 1m | Either the mean or the range correct  |   |



