Chief Examiner Report for Functional Skills Maths

NCFE Functional Skills Qualification in Mathematics at Level 1 – 501/2325/7
NCFE Functional Skills Qualification in Mathematics at Level 2 – 501/2324/5

February 2016

Level 1:

Establishment was often demonstrated with equivalencies between decimals and percentages. Similarly, fraction values and percentage values were often completed proficiently. However, equivalencies between fractions, and equivalencies between fractions and percentages, often indicated that further practice would be beneficial (this was also evident at tasks where a fraction value was requested and the equivalent percentage value was attempted). Additionally, further advice on appropriate displays for fractions may be useful for many learners, and extending this to probability display may be of benefit (probability was often shown as a ratio).

Although ratio use is still indicated as a development area for many, ratio simplification did show improvement. However, further support with arrangement and display will be beneficial for learners preparing for final assessment (using a colon (:) or using ‘to’ are both acceptable, for example, 1:3 or 1 to 3).

Solving problems with money or time indicated familiarity. However, solving problems with measure indicated less familiarity. This was more evident at tasks where area, or perimeter, was included. Further practice exploring the use and purpose of area and perimeter, and their differences, may be beneficial. Similarly, although the labelling of final answers for money and time often showed proficiency, the labelling of final answers with units of measure, for example, metres squared indicated less establishment.

Identifying information generally indicated proficiency and, often, information was used appropriately or displayed appropriately. Errors that were identified with graphs or charts were often associated with labelling, or not displaying units.

Range and mean tasks often indicated establishment, although errors were identified that were caused by confusion between the 2 methods. Further exploration of the purpose, as well as the method, may be beneficial for learners preparing for final assessment.

Level 2:

Although errors were identified with ratio, simplification was often completed correctly. Errors included identification of values, arrangement in order and display. Learners may benefit from further advice with accepted display: using a colon (:) or using 'to' are both acceptable (for example, 1:3 or 1 to 3). However, display as a fraction is not acceptable. It may be beneficial for this advice to be extended to probability, as it wasn't uncommon for final displays to use ratio display.

Although displays of scales indicated familiarity (for example, 1:400), working with scale was similarly indicated as a development area: learners will be more appropriately prepared for final assessment with further practice using and creating appropriate scales. Using proportion was also indicated as a development area for many learners. Often, applying division to identify quantities indicated unfamiliarity. Further practice with tasks that involve division and incorporating measure may provide further support and experience to learners preparing for assessment.

Generally, converting proportions to lowest fraction form, to percentages, or to decimals was often completed accurately. Similarly, percentage or fraction values were mostly calculated correctly. Additionally, requested checks relating to proportions often demonstrated proficiency of using alternative methods or reversing calculations. However, assessments indicated that identifying original values after a given change was a challenging area for learners.

Errors identified within formulae tasks included substitution, use of units (for example, time or length) and squared values. It was also indicated that differentiating between radius and diameter, circumference and area, and internal and external volume may be areas of development.

Generally, there was establishment shown when converting within metric measure, although errors were seen when familiarity with a wide enough range of measurement systems wasn't evident (establishment with metric forms of length, weight and capacity is recommended, as well as the necessity to work with consistent units). Learners preparing for assessment may also benefit from further practice converting between systems: whether to apply division or multiplication to convert indicated insufficient establishment.

Graph production was generally proficient, although it was indicated that re-visiting pie chart production, including calculation of angles, may be useful for some learners. Labelling of graphs was generally proficient, although learners may benefit from being reminded that only labelling with units (for example, £ or pounds) is insufficient, and that scale intervals need to be consistent.

Tasks with averages and range were generally completed proficiently. However, there were instances where averages' methods had become confused. Further exploration on the use, or purpose, of different averages may benefit some learners, and may support comparisons or conclusions.

Generic Overview:

Check requests are often not attempted by learners, indicating lack of familiarity. Support exploring reverse calculations, alternative methods and checks using estimation would be beneficial for learners preparing for final assessment. A repeat of a calculation, or an explanation of the method, isn't acceptable.

Labelling of final responses with units and display of final answers (to the requested level of accuracy) should be reiterated to learners preparing for assessment. It may also be useful to incorporate practice with rounding and accuracy displays, so that rounding or requested displays don't affect accuracy of final answers. This was particularly noted with Level 2 learners, but will also be of benefit to Level 1 learners. Exploration, or advice, with vocabulary to increase familiarity with requests (for example, to the nearest penny, or to 2 decimal places) may provide support for some learners.

Similarly, support with appropriate displays of fractions, ratio and probability incorporating exploration of vocabulary may be useful for learners preparing for final assessment (for example, 'likelihood', 'chance', 'simplest form', 'lowest form' and 'lowest terms').

It will also be beneficial to discuss expectations of a 'comparison': learners often calculate values, or differences, accurately but don't comment on increase/decrease, larger/smaller, or cheaper/more expensive ('difference' is often not an acceptable comparison).

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