PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Marking Guidance for Functional Skills Mathematics Level 1

General

- All learners must receive the same treatment. Examiners must mark the first learner in exactly the same way as they mark the last.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded; exemplification will not be exhaustive. When examiners are in doubt regarding the application of the mark scheme, the response should be escalated to a senior examiner to review.
- Mark schemes should be applied positively. Learners must be rewarded for what they have shown they can do rather than penalised for omissions.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the learner's response is not worthy of credit according to the mark scheme. If there is a wrong answer (or no answer) indicated in the answer box, always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.
- Working is always expected. For short questions, where working may not be seen, correct answers may still be awarded full marks. For longer questions, an answer in brackets from the mark scheme seen in the body of the working, implies a correct process and the appropriate marks may be awarded.
- **Questions that specifically state that working is required**: learners who do not show working will get no marks – full details will be given in the mark scheme for each individual question.

Applying the Mark Scheme

- The mark scheme has a column for **Process** and a column for **Evidence**. In most questions the majority of marks are awarded for the process the learner uses to reach an answer. The evidence column shows the *most likely* examples that will be seen. If the learner gives different evidence valid for the process, examiners should award the mark(s).
- If working **is crossed out and still legible**, then it should be marked, as long as it has not been replaced by alternative work.
- If there is a **choice of methods** shown, then mark the work leading to the answer given in the answer box or working box. If there is no definitive answer then marks should be awarded for the lowest scoring method shown.
- A suspected **misread**, e.g. 528 instead of 523, may still gain process marks provided the question has not been simplified. Examiners should send any instance of a suspected misread to a senior examiner to review.
- It may be appropriate to **ignore subsequent work (isw)** when the learner's additional work does not change the meaning of their answer.

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

- **Correct** working followed by an **incorrect decision** may be seen, showing that the learner can calculate but does not understand the functional demand of the question. The mark scheme will make clear how to mark these questions.
- **Transcription** errors occur when the learner presents a correct answer in working, and writes it incorrectly on the answer box e.g. 698 in the body and 689 in the answer box; mark the better answer if clearly only a transcription error. Examiners should send any instance of transcriptions errors to a senior examiner to review.
- **Incorrect method** if it is clear from the working that the correct answer has been obtained from incorrect working, award 0 marks. Examiners must escalate the response to a senior examiner to review.
- **Follow through marks (ft)** must only be awarded when explicitly allowed in the mark scheme. Where the process uses the learner's answer from a previous step, this is clearly shown.
  - Speech marks are used to show that previously incorrect numerical work is being followed through, for example '240' means their 240 coming from a correct or set of correct processes.
  - When words are used in { } then this value does not need to come from a correct process but should be the value the learner believes to be required. The constraints on this value will be detailed in the mark scheme. For example, {volume} means the figure may not come from a correct process but is clearly the value learners believe should be used as the volume.
- Marks can usually be awarded where units are not shown. Where units are required this will be stated. For example, 5(m) indicates that the units do not have to be stated for the mark to be awarded.
- Learners may present their answers or working in many **equivalent** ways. This is denoted oe in the mark scheme. Repeated addition for multiplication and repeated subtraction for division are common alternative approaches. The mark scheme will specify the minimum required to award these marks.
- A **range** of answers is often allowed, when a range of answers is given e.g. [12.5, 13] this is the inclusive closed interval.
- **Accuracy** of figures. Accept an answer which has been rounded or truncated from the correct figure unless other guidance is given. For example, for 12.66.. accept 12.6, 12.7, 12.66, 12.67 or any other more accurate figure.
- **Probability** answers must be given as a fraction, percentage or decimal. If a learner gives a decimal equivalent to a probability, this should be written to at least 2 decimal places (unless tenths). If a learner gives the answer as a percentage a % must be used. Incorrect notation should lose the accuracy marks, but be awarded any implied process marks. If a probability fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.
- **Graphs.** A linear scale must be linear in the range where data is plotted, and use consistent intervals. The scale may not start at 0 and not all intervals must be labelled. The minimum requirements will be given, but examiners should give credit if a title is given which makes the label obvious.

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Section A (Non-Calculator)

PMAT1/N06				
Question	**Process**	**Mark**	**Mark Grid**	**Evidence**
Q1	Begins to work with total number of toys or percentage	1 or	A	800 × 6 (=4800) **OR** 800 × 5 ÷ 100 (=40) oe
	Full process to find total number of toys checked	2 or	AB	'4800' × 5 ÷ 100 (=240) oe **OR** '40' × 6 (=240)
	Accurate figure	3	ABC	240
	Total marks for question	**3**		

Question	**Process**	**Mark**	**Mark Grid**	**Evidence**
Q2(a)	Accurate figure	1	A	$\frac{3}{10}$ oe
Q2(b)	Accurate figure	1	B	1600
Q2(c)	Accurate figure	1	C	19.1
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q3(a)	Begins to work with operators	1 or	A	17 – 3 (=14) **OR** 4 × 4 (=16)
	Full process to find accurate figure	2 or	AB	'14' ÷ 2 + '16' (=23)
	Accurate figure	3	ABC	23
Q3(b)	Valid reverse calculation check	1	D	Valid check, e.g. 23 – 7 = 16
	Total marks for question	**4**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q4	Process to find a missing length	1	A	9 – 3 (=6) **or** 7 – 5 (=2)
	Process to find one relevant area	1 or	B	9 × 7 (=63) **or** 3 × 7 (=21) **or** 9 × 5 (=45) **or** '6' × 5 (=30) **or** '2' × 3 (=6) **or** '6' × '2' (=12)
	Full process to find total area	2 or	BC	'63' – '12' (=51) **or** '21' + '30' (=51) **or** '45' + '6' (=51)
	Accurate figure	3	BCD	51
	Total marks for question	**4**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Section B (Calculator)

PMAT1/C06				
Question	**Process**	**Mark**	**Mark Grid**	**Evidence**
Q1	Process to convert at least one time	1	A	e.g. 0.5 × 60 (=30) **or** 40 ÷ 60 (= $\frac{2}{3}$) **or** $\frac{3}{4}$ × 60 (=45) May be seen or implied in subsequent working
	Full process to work with time (may not all be converted)	1 or	B	e.g. 5 (hrs) 30 (mins) + 40 (mins) + '3 (hrs) 45 (mins)' (=9 hrs 55 mins) **OR** '600' – '225' – '330' – 40 (=5 mins)
	Valid decision with accurate figures	2	BC	No **AND** 9 (hrs) 55 (mins) oe **OR** No **AND** 5 (mins shorter)
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q2	Measures value of angle in "fish" sector	1	A	120° (± 2°)
	Works with proportion	1 or	B	e.g. 360 ÷ {angle} (=3) **OR** 360 ÷ 180 (=2) **OR** 180 ÷ 360 (=0.5) **OR** {angle} ÷ 360 (=0.33..)
	Full process to find the number of students	2 or	BC	e.g. 180 ÷ '3' (=60) **OR** {angle} ÷ '2' (=60) **OR** '0.5' × {angle} (=60) **OR** '0.33..' × 180 (=60)
	Accurate figure from working	3	BCD	60 Ft their angle NB This question requires working shown
	Total marks for question	**4**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

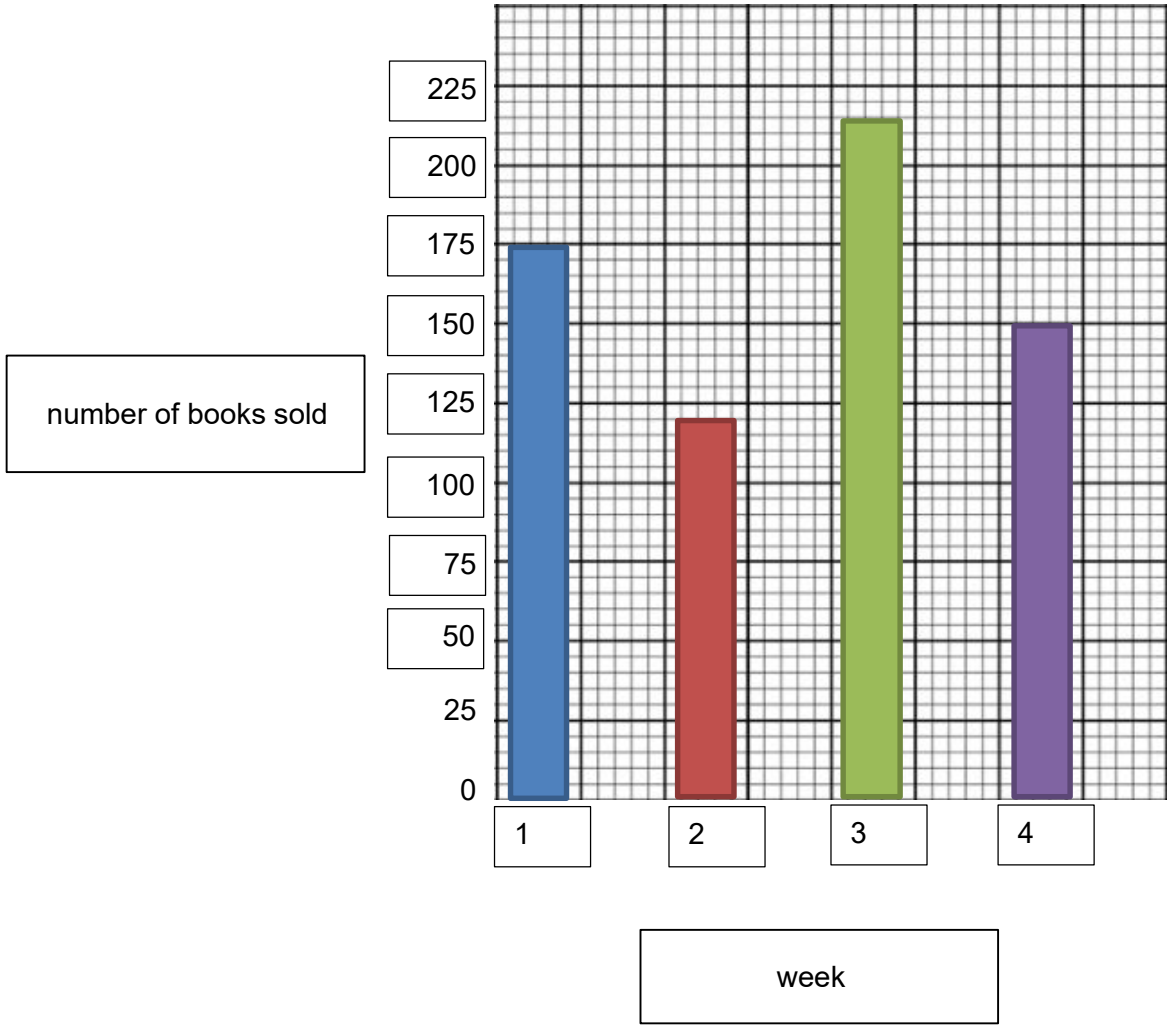
Question	Process	Mark	Mark Grid	Evidence
Q3	Uses consistent units	1	A	e.g. 2.6 **or** 4000 **or** 4500 **or** 17000 **or** 180 May be seen or implied in subsequent calculations
	Process to find perimeter of the field or works with the gap or the panel size	1 or	B	40 × 2 + 45 × 2 (=170) **OR** 40 – '2.6' (=37.4) oe **OR** 40 ÷ 1.8 (=22.22..) **or** 45 ÷ 1.8 (=25) **or** '2.6' ÷ 1.8 (=1.44..)
	Process to find total required length of fence panels or number of panels for at least 2 lengths	2 or	BC	e.g. '170' – '2.6' (=167.4) **OR** '170' ÷ 1.8 (=94.4..) **OR** '22.22..' + '25' (=47.22..) **or** '25' × 2 (=50)
	Full process to find total number of fence panels required	3 or	BCD	e.g. '167.4' ÷ 1.8 (=93) **OR** '94.4..' – '1.44..' (=93) **OR** '25' × 2 + '22.22..' × 2 – ('2.6' ÷ 1.8) (=93)
	Accurate figure	4	BCDE	93
	Total marks for question	**5**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q4	Begins to draw a chart	1 or	A	One of: Completes linear scale Correct labels on horizontal and vertical axes Accurate plotting
	Develops chart	2 or	AB	Two of: Completes linear scale Correct labels on horizontal and vertical axes Accurate plotting
	Fully correct chart	3	ABC	All of: Completes linear scale Correct labels on horizontal and vertical axes Accurate plotting Minimum labels (W)1, 2, 3, 4, week(s), (number of) books (sold)
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Example solution for Q4



PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q5	Begins to work with total or multiplier	1 or	A	e.g. 840 – 720 (=120) **OR** 720 ÷ 6 (=120) **OR** 840 ÷ (6 + 1) (=120)
	Full process to find figures to compare	2 or	AB	e.g. '120' × 6 (=720) **OR** 840 – 720 (=120) **AND** 720 ÷ 6 (=120) **OR** '120' ÷ 720 (=0.166..) **AND** 1 ÷ 6 (=0.166..) oe **OR** 840 ÷ (6 + 1) (=120) **AND** 840 – 720 (= 120)
	Valid decision with accurate figures supported by working	3	ABC	e.g. Yes **AND** 720 (from '120' × 6) **OR** Yes **AND** 120 (from two correct processes) **OR** Yes **AND** 0.16(6..) (from two correct processes) oe **OR** Yes **AND** 6 : 1 (from correct simplification of 720 : '120') NB This question requires working shown
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q6	Begins to work with mean	1 or	A	58 + 64 + 49 + 73 + 89 + 96 + 103 (=532) oe
	Full process to find the mean	2	AB	'532' ÷ 7 (=76) oe Allow process to find mean income for marks A and B
	Begins to work with percentage	1 or	C	e.g. 8 × 25 ÷ 100 (=2) oe **OR** {mean} × 25 ÷ 100 (=19) oe **OR** '608' × 25 ÷ 100 (=152) oe
	Full process to find percentage increase or difference	2	CD	e.g. 8 + '2' (=10) oe **OR** {mean} + '19' (=95) oe **OR** '608' + '152' (=760) oe **OR** 750 – '152' (=592) oe
	Process to find a total daily income or mean income or number of haircuts	1 or	E	e.g. {number of daily haircuts} × '10' **or** '76' × '10' (=760) **OR** '95' × 8 (=760) **OR** '76' × 8 (=608) **OR** 750 ÷ '10' (=75)
	Valid decision with accurate figures	2	EF	e.g. Yes **AND** (£)760 **OR** Yes **AND** (£)608 **and** (£)592 **OR** Yes **AND** 75 **and** 76 (mean number of haircuts)
	Total marks for question	**6**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q7	Full process to find volume	1 or	A	$8 \times 8 \times 17$ (=1088)
	Accurate figure	2	AB	1088
	Correct unit of capacity	1	C	cm^3
	Total marks for question	**3**		

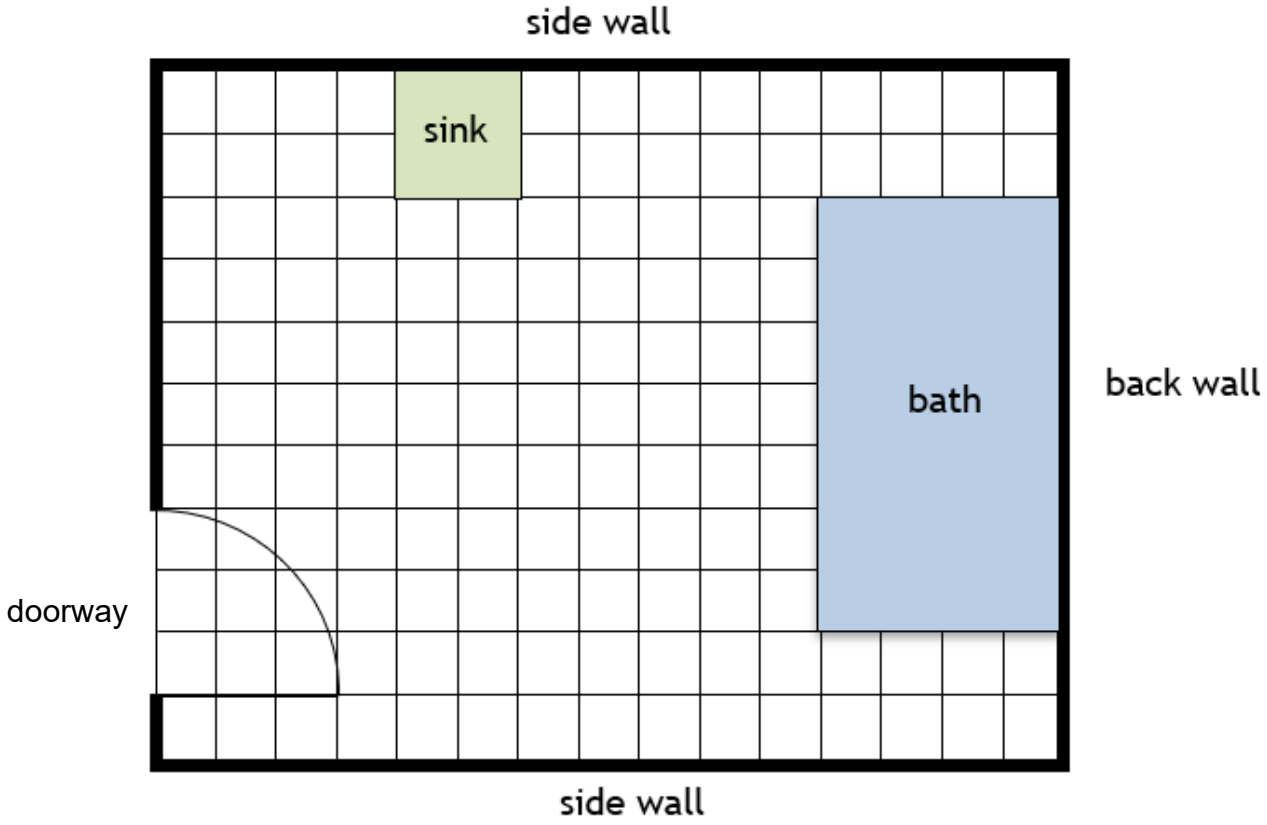
Question	Process	Mark	Mark Grid	Evidence
Q8	Correct figure	1	A	470 015
	Full process to find figures to compare	1 or	B	{population} × 0.6 (=282 009) **OR** 272 019 ÷ 0.6 (=453 365)
	Valid decision with accurate figures ft their population provided at least 5 digits	2	BC	No **AND** 282 009 **OR** No **AND** 470 015 **and** 453 365
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q9	Begins to draw the bath	1 or	A	Rectangle with 2 of: side length 7 squares side length 4 squares against the back wall equal distance from the side walls
	Fully correct drawing for bath	2	AB	Rectangle with all of: side length 7 squares side length 4 squares against the back wall **and** equal distance from the side walls
	Begins to draw the sink	1 or	C	Square with 2 of: side length 2 squares against the side wall at least 4 square lengths from the doorway and the bath
	Fully correct drawing for sink	2	CD	Square with all of: side length 2 squares against the side wall at least 4 square lengths from the doorway and the bath NB rectangle and square do not need to be labelled
	Total marks for question	**4**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Example solution for Q9



PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q10(a)	Process to find the range	1 or	A	63.1 – –42.4 (=105.5) **OR** –42.4 to 63.1
	Accurate figures	2	AB	105.5
Q10(b)	Valid check	1	C	Valid check, e.g. 105.5 – 63.1 = 42.4 **OR** 106 – 63 = 43
	Total marks for question	**3**		

PEARSON EDEXCEL FUNCTIONAL SKILLS MATHEMATICS
MARK SCHEME – LEVEL 1 SET 6

Question	Process	Mark	Mark Grid	Evidence
Q11	Process to find required number of packs or cost per plate	1	A	90 ÷ 6 (=15) **OR** 3.55 ÷ 6 (=0.59..)
	Process to work with fraction	1 or	B	e.g. 3.55 ÷ 5 (=0.71) **OR** '53.25' ÷ 5 (=10.65) **OR** '0.59..' ÷ 5 (=0.118..)
	Full process to find discounted cost of a pack or a plate	2	BC	e.g. 3.55 – '0.71' (=2.84) **OR** '53.25' ÷ 5 × 4 (= 42.6) oe **OR** '0.59..' ÷ 5 × 4 (=0.473..) oe
	Full process to find figures to compare	1 or	D	'2.84' × '15' (=42.6) **OR** 45 ÷ 90 (=0.5) **OR** 3.55 × '15' (=53.25) **OR** 45 ÷ '15' (=3)
	Valid decision with accurate figure	2	DE	Yes **AND** (£)42(.6) **OR** Yes **AND** (£)0.5 **and** (£)0.4(73..) **OR** Yes **AND** (£)3 **and** (£)2(.84)
	Total marks for question	**5**		