

GCSE

Methods in Mathematics (Linked Pair Pilot)

9365F

Unit 2: Foundation Tier

Mark scheme – Additional Guidance

9365

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Q	Additional Guidance
4(f)	Additional exemplars provided. Any completely enclosed 'L' with further 'L's not prohibiting further tessellation B1
7(a)(b)	Will need to mark both clips together
8	If evidence of using perimeter 0 marks
	If all parts of B 'counted' B0
9(c)	Exemplars provided
12	Answer line takes precedence
15(b)	$2 \times 8 - 3 = 13$ M1 A1 if answer line blank or M1 A0 if further answer given. Correct inverse flow diagram M1
19	<p>It is not necessary to multiply $23 \div 40$ or their $(40 - 23) \div 40$ by 100 to get M1 as many students may be familiar with a multiplier so know to just move the decimal point to get the percentage.</p> <p>It is necessary to multiply by 100 to get the follow through in the alternate scheme as the answer must be converted to a percentage.</p> <p>In the first scheme $23 \div 40 = 0.575$ M1, $100 - 0.575 = 99.425$ A0, A1ft as this shows the correct strategy.</p> <p>It is unlikely that if $40 - 23$ is miscalculated but this must be seen to score. eg $27 \div 40$ may imply that $40 - 23$ is miscalculated but unless $40 - 23 = 27$ is seen then it is M0.</p> <p>Third scheme is for taking 40 as 100% and breaking 40 up to get 23 or 17. This is a M1, M1dep scheme so no follow through.</p> <p>Fourth scheme is for scaling 40 to 100 and doing the same scaling for 23 or 17. This is a M1, M1 scheme where if the second M1 is awarded it implies the first but no follow through.</p>
20	.Allow $a^2 = \text{odd}$ as a is given as odd in the question and/or $b^2 = \text{even}$ as b is given as even in the question. Allow $a^2 + b^2 = \text{odd}$ if both $a^2 = \text{odd}$ and $b^2 = \text{even}$ stated.
23	<p>Only the first 5 dps need be checked as it is impossible that if these are correct that the rest will be wrong.</p> <p>Common wrong answers:</p> <p>2.19010... rounding to 2.2 (not a problem as part (a) is GM)</p> <p>-0.44871... rounding to -0.4</p> <p>4.52099... rounding to 4.5</p>

26(b)

If the equation is set up correctly and solved incorrectly then the Q1 is awarded.

ie $2x + 3 + x + 6 = 30$, $3x + 9 = 30$, $3x = 39$, $x = 13$ is M1, A0, Q1

Otherwise the wrong equation providing it includes both x , $2x$ (or $3x$) and a 'sensible' combination of numbers from 3, 6 and/or 30 **must** be solved correctly for Q1

Special case if $3x$ or $6x$ given for 3 or 6 and this is used to set up the equation then allow Q1 if equation set up and solved correctly, eg $3x$ and $6x$ given in (a), $x + 2x + 3x + 6x = 30$, $x = 2.5$ is Q1.

7 without an equation is Q0, M1, A1