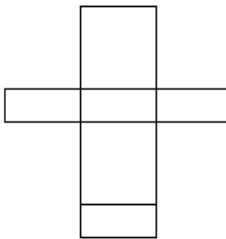
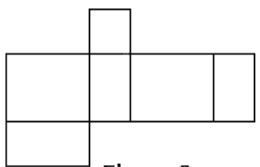
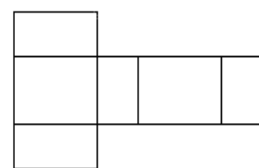
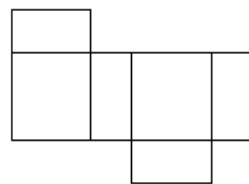


# ERRATA FOR MATHEMATICS AND MATHEMATICAL SCIENCES (MMS4) 2016

QUESTION No.	FINDINGS ON TASK	FINDINGS ON TOOL	RECOMMENDATIONS
ASSIGNMENT			
1.1.1		Company C is 15 instead of 17	Correct Company C to 17.
1.1.1	Company E has 23 workers per class		Change 23 to 25
2.1.1	Mark allocation is 2		Ensure that marks on the task and tool corresponds. Correct it to 4 marks
2.2.1	1 mark instead of 2 marks		Change to 2 marks
3.3.1	Position of numbers in row 2		On electronic version shift row 2 numbers to correct position.
3.3.2		Allocated 2 marks instead of 1mark	Remove one tick and change mark allocation to 1 mark. Change question 3 total to 20 marks
INVESTIGATION			
1.1.1 – 1.1.7	The question is not clear. Mark allocation is not clear. The tasks states that, use 5cm, 12cm and 13cm.	No answers on the memo to mark question 1.1.1 – 1.1.7.  The tool states that use the values 6, 8 and 10	Please give clear instructions on task and tool.
1.1.5 and 1.1.7		There is no direct mark allocation on the rubric, although it requires some effort from the candidate.	Make the marking tool more understandable.
2.1.6		Reference is made about large square. $n = 150$ is not number of required squares but the length of the side of the larger square.	Calculation is for small squares Proper calculation may be: $4n = 600$ $n = 150$ length of larger square $\therefore$ number of small squares

			$= (150)^2$ $= 22\,500$ squares <b>NB: mark allocation would not be enough</b>
Activity 1		The rubric is a bit confusing. There should have been some suggested answers in the tool.	Some suggested answers are shown at the end of this document.
QUESTION No.	FINDINGS ON TASK	FINDINGS ON TOOL	RECOMMENDATIONS
PROJECT			
1.1.1		Measurements on kitchen tile floor, bedroom 2 length and breadth seem to deviate with about 0,4 to 0,5 cm	Since its practical measurement, there should be a interval of acceptable measurements. Some problems may arise from the fact that different computer systems may print the house plan with different dimensions.
1.1.2		Answer is a square	Propose to accept rectangle by reason of 1.1.1 recommendations
1.1.4-1.1.7		Dimensions may vary and results of calculations may differ as well	May we consider follow-on on these questions based on measurements recorded in table in 1.1.1
1.1.5	Not enough marks	No mark allocation	5 marks should have been allocated for this response
1.1.7		Area of the tiles $= 50\text{cm} \times 50\text{cm} = 2500\text{m}^2$	.... 2500cm <sup>2</sup>
1.4 (a)		Incorrect answers	10 minutes after 9 O'clock in the evening
2.1.4		Area of two sides with triangular top: Base of triangle = 4m	Base of triangle = 8m $2 \times [(5\text{m} \times 8\text{m}) + \frac{1}{2}(8\text{m})(3\text{m})]$ $2 \times [40\text{m}^2 + 12\text{m}^2]$ $2 \times [52\text{m}^2]$ $104\text{m}^2$
2.1.4		Final answer is 92m <sup>2</sup>	$= 100\text{ m}^2 + 100\text{ m}^2 + 104\text{ m}^2$

			= 304 m <sup>2</sup>
2.2.1		Incorrect net given	<p>Consider one of the following:</p>  <p>Figure 1</p>  <p>Figure 2</p>  <p>Figure 3</p>  <p>Figure 4</p>
2.2.4	Mark allocation is 6	7 marks for this question	Correct mark allocation on task to 7 marks
QUESTION No.	FINDINGS ON TASK	FINDINGS ON TOOL	RECOMMENDATIONS
TEST			
1.1	PATTERN 2 shows two separate hexagons		The shapes must be merged such that they share a side
WORKSHEET			
2.3.2	Typo error: "S" missing on "tep 2:"		It should read "Step 2:"

\*\*\*\* PLEASE SCRUTINISE THE RED TEXT, IT IS MY OPINION, BEFORE CIRCULATING IT

## INVESTIGATION : Activity 1

1.1.1  $(AC)^2 = 10^2 = 100$   
 $(AB)^2 = 6^2 = 36$   
 $(BC)^2 = 8^2 = 64$

1.1.2  $(AB)^2 + (AC)^2 = 36 + 100 = 136$   
 $(AB)^2 + (BC)^2 = 36 + 64 = 100$   
 $(BC)^2 + (AC)^2 = 64 + 100 = 164$

1.1.3  $(AB)^2 + (AC)^2 = (BC)^2$   
 $136 \neq 64$   
 $\therefore \text{LHS} \neq \text{RHS}$

$$(AB)^2 + (BC)^2 = (AC)^2$$
$$100 = 100$$
$$\therefore \text{LHS} = \text{RHS}$$

$$(BC)^2 + (AC)^2 = (AB)^2$$
$$164 \neq 36$$

$$\therefore \text{LHS} \neq \text{RHS}$$

1.1.4 **A right angled triangle to be drawn**

$$13^2 = 169$$

$$5^2 = 25$$

$$12^2 = 144$$

Comparison of the longest side and the other two sides

$$169 = 25 + 144$$

$$\therefore 169 = 169$$

1.1.5 The square of the longest side ( **$13^2$** ) is equal to the square of the other two sides added together ( **$5^2 + 12^2$** ) in a right angled triangle.

1.1.6 **A non right-angled triangle must be drawn with dimensions 13:9:10**

$$13^2 = 169$$

$$9^2 = 81$$

$$10^2 = 100$$

Comparison of the longest side and the other two sides

$$169 \neq 81 + 100$$

$$169 \neq 181$$

1.1.7 No, if a triangle is not a right-angled triangle, the square of the longest side ( **$169$** ) is not equal to the sum of the squares of the other two sides ( **$81 + 100$** ).

Theorem of Pythagorus:

In any right angled triangle, the square of the longest side is equal to the sum of the squares of the other two sides.