

Education Bureau
Territory-wide System Assessment 2026
Secondary 3 Mathematics
Marking Scheme

Note (for Section B and C of each sub-paper):

***Mark for Answer:**

- (1) The Mark for Answer may be given when there is a correct answer without any work shown.
- (2) If the work shown is incorrect, the Mark for Answer will not be given.
- (3) If the work shown is poorly presented but there is a correct answer, the Mark for Answer may be given.

****Mark for Presentation:**

- (1) If the work shown is correct but the answer is incorrect, the Mark for Presentation may be given.
- (2) If the work shown is incorrect, the Mark for Presentation will not be given.
- (3) If the numerical value of the answer is correct but not the approximate value as required by the question, the Mark for Presentation will not be given.
- (4) The Mark for Presentation may include overall work such as mathematical expressions, units, written explanations, use of symbols, etc.

r.t. xxx means “accept answers which can be rounded to xxx” .

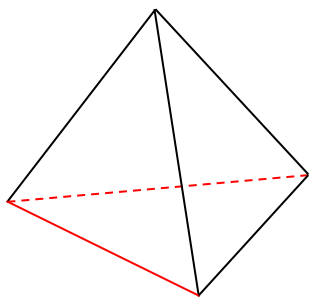
Steps that may be skipped are shown in **shade**.

Alternative suggested answers are shown in **boxes**.

Section A – Sub-paper 2 (9ME2) (1 mark each)

1. C
2. C (9ME3-2)
3. B
4. A (9ME3-3)
5. C (9ME1-4)
6. A
7. B
8. A (9ME3-8)
9. D (9ME3-9)
10. A
11. D (9ME1-10)
12. B
13. A (9ME1-13)
14. A (9ME1-14)
15. D (9ME3-16)
16. C (9ME1-15)
17. C
18. B (9ME1-18)
19. B (9ME3-19)
20. D (9ME1-20)

Section B – Sub-paper 2 (9ME2)

Question Number	Suggested Answers	Marks	Notes
21.	4	1	
22. (9ME3-22)	370	1	
23. (9ME1-24)	(i) Direct proportion (ii) Inverse proportion	1	All must be correct
24.	$x = \underline{\quad 16 \quad}$	1	
25.	$\frac{1}{512}$	1	
26. (9ME1-26)	$\underline{\quad 3.16 \times 10^7 \quad}$ seconds	1	No need to consider unit
27.	$9x$	1	
28.	$3a(a + 2b - 4c)$	1	
29. (9ME3-27)	$9x^2 - 30x + 25$	1	
30. (9ME3-28)	ny	1	
31.	The maximum absolute error of the measurement is $\underline{\quad 0.05 \quad}$ kg .	1	No need to consider unit
32.		1	All must be correct
33.	$y = \underline{\quad 120^\circ \quad}$	1	No need to consider unit
34.	$x = \underline{\quad 5 \quad}$ $y = \underline{\quad 26 \quad}$	1	All must be correct No need to consider unit
35. (9ME1-36)	$x = \underline{\quad 6 \quad}$	1	No need to consider unit
36.	$\theta = \underline{\quad 38.2^\circ \quad}$	1	r.t. 38.2° No need to consider unit

Question Number	Suggested Answers	Marks	Notes	
37. (9ME3-36)	Table 1		1(37-1)	
	Completion time (seconds)	Frequency		
	1 – 8	1		
	9 – 16	7		
	17 – 24	3		
	25 – 32	3		
	33 – 40	6		
	Table 2		1(37-2)	
	Completion time (seconds) less than	Cumulative Frequency		
	10.5	2		
	20.5	9		
	30.5	13		
	40.5	20		
	38. (9ME3-37)	(a) The athlete ran <u>125</u> km last week.	1(38a)	
(b) The athlete performed high-intensity training <u>3</u> days last week.		1(38b)		
39. (9ME1-38)	(a) The median of the standing long jump results of 30 students was <u>128</u> cm .	1 (39a)	No need to consider unit	
	(b) There were <u>10</u> students in that group who needed to attend the Fitness Enhancement Class.	1 (39b)		

Section C – Sub-paper 2 (9ME2)

Question Number	Suggested Answers	Marks	Notes
40.	The value of the smart phone after 3 years $= \$8\,000 \times (1 - 15\%)^3$ $= \$4\,913$ or $\\$8\,000 \times 0.85 = \\$6\,800$ $\\$6\,800 \times 0.85 = \\$5\,780$ $\\$5\,780 \times 0.85 = \\$4\,913$ The value of the smart phone after 3 years is \$4 913.	1 (40-1) 1* (40-2) 1** (40-3) 1 (40-1) 1* (40-2) 1** (40-3)	Correct method (multiply 0.85 three times)
41.	Each student can get orange juice $= \frac{8 \times 375}{10} \text{ mL}$ $= 300 \text{ mL}$	1 (41-1) 1* (41-2) 1** (41-3)	
42. (9ME1-43)	$\begin{cases} 4x + y = 13 & \dots(1) \\ 2x + y = 9 & \dots(2) \end{cases}$ (1) – (2) : $2x = 4$ $x = 2$ Substitute $x = 2$ into (2), $2(2) + y = 9$ $y = 5$	1 (42-1) 1* (42-2) 1 (42-3) 1* (42-4)	Eliminated one of the variables by using a correct method Correct value of x (or y) Correct method Both values must be correct

Question Number	Suggested Answers	Marks	Notes										
43. (9ME1-44)	Let the height of B be x cm . $\left(\frac{x}{432}\right)^3 = \frac{1}{27}$ $x = 144$ $\therefore \text{The height of } B \text{ is } 144 \text{ cm .}$	1 (43-1) 1* (43-2) 1** (43-3)											
44. (9ME3-46)	The area of polygon $ABCDE$ $= (8-0)\times(3-1)+\frac{(4-0)\times(8-3)}{2}$ $= 26 \text{ sq. units}$	1 (44-1) 1* (44-2) 1** (44-3)	Or other correct methods										
45.	$\angle ABC + 73^\circ + 34^\circ = 180^\circ \quad (\angle \text{ sum of } \triangle)$ $\angle ABC = 73^\circ$ $\angle ACB = 73^\circ \quad (\text{Given})$ $\therefore \angle ABC = \angle ACB$ $\therefore AC = AB \quad (\text{side opp. eq. } \angle s)$ $\therefore \triangle ABC \text{ is an isosceles triangle.}$		Or other correct proofs										
	Conditions												
	(1) Any correct proof with correct reasons	3											
	(2) Any correct proof with poor presentation, missing reasons or inappropriate reasons	2											
	(3) Incomplete proof with any one correct statement and one corresponding reason	1											
	(4) Incomplete proof without any correct statements	0											
46.	$69^\circ + 21^\circ + x + 5x = 180^\circ$ $6x = 90^\circ$ $x = 15^\circ$	1 (46-1) 1* (46-2)	No need to consider unit										
47.	Lunch expenses of 15 students yesterday	1 (47-1)	Correct data of the leaf in each row (no need to consider the order)										
	<table><tr><th>Stem (\$10)</th><th>Leaf (\$1)</th></tr><tr><td>3</td><td>0 2 5 7</td></tr><tr><td>4</td><td>1 1 4 8</td></tr><tr><td>5</td><td>2 5 7</td></tr><tr><td>6</td><td>2 5 8 9</td></tr></table>	Stem (\$10)	Leaf (\$1)	3	0 2 5 7	4	1 1 4 8	5	2 5 7	6	2 5 8 9	1* (47-2)	All correct (including the distances between data, the order of the data and no commas between the data)
	Stem (\$10)	Leaf (\$1)											
	3	0 2 5 7											
	4	1 1 4 8											
5	2 5 7												
6	2 5 8 9												