SET 1 **MODEL QUESTION PAPER** KEY MA-7/1

SECOND TERM SUMMATIVE ASSESSMENT 2026-27

MATHEMATICS – ANSWER KEY & SCORING INDICATORS

Standard : 7 **Time : 2 Hrs 15 Minutes**

Instructions to the Teacher

- The scores given are suggestive. Give scores for the correct method even if the final answer is wrong.
- Accept all correct alternative methods.
- Find the percentage of the total score secured and award the grade using the table below.

Score percentage	Grade
80 – 100	A – Outstanding
60 – 79	B – Very Good
40 – 59	C – Good
30 – 39	D – Satisfactory
Below 30	E – Needs Improvement

1.A Ratio

a)	Total parts = 5 + 3 = 8; one part = 72 ÷ 8 = 9 m Longer piece = 5 × 9 = 45 m; shorter piece = 3 × 9 = 27 m	**2**
b)	27/45 = 3/5. The shorter piece is 3/5 of the longer piece.	**1**
c)	One part = 72 ÷ 9 = 8 m; shorter piece = 2 × 8 = 16 m (longer = 56 m)	**1**
d)	B. Width and length are in the ratio 3 : 2. (3/4 ÷ 1/2 = 3/2)	**1**

1.B Ratio

a)	24 : 18 = 4 : 3	**2**
b)	18/24 = 3/4	**1**
c)	24 : 24 = 1 : 1	**1**
d)	B. 12 : 9	**1**

2 Powers

a)	$2^6 = 64$	**2**
b)	$64 = 4^3 = 8^2$	**2**

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c)	$2^5 = 32$, $5^2 = 25$. 2^5 is larger by 7.	**2**
d)	$3^4 = 81$; $10^4 = 10000$	**2**

3 Factors

a)	1, 2, 3, 4, 6, 9, 12, 18, 36	**2**
b)	9 factors. Perfect squares have an odd number of factors, e.g. 16 (5 factors), 25 (3 factors)	**2**
c)	11, 13, 17, 19, 23, 29 (prime numbers)	**2**
d)	1 + 2 + 4 + 7 + 14 = 28. The sum equals the number. Such a number is a perfect number.	**2**

4 Shorthand in Mathematics

a)	Brother: x + 3; Father: 4x	**2**
b)	Brother 12 years; father 36 years	**1**
c)	6x + 6 = 6(x + 1)	**2**
d)	C. x − y + z	**1**
e)	375 + 99 = 375 + 100 − 1 = 474 (add 100 and subtract 1)	**1**

5 Algebra

a)	$3x + 5 = 26 \rightarrow 3x = 21 \rightarrow x = 7$	**2**
b)	$p = 4s$; $4s = 48 \rightarrow s = 12$ cm	**2**
c)	$(n - 1) + n + (n + 1) = 48 \rightarrow 3n = 48 \rightarrow n = 16$. Numbers: 15, 16, 17	**2**
d)	$20 - (8 + 5) = 20 - 13 = 7$; $20 - 8 - 5 = 12 - 5 = 7$. Both are the same.	**2**
e)	The sum of two numbers multiplied by a third number is equal to the sum of the products of each number with the third number.	**1**

6.A Decimals

a)	42.50 × 3.5 = 148.75 rupees	**2**
b)	212.50 ÷ 42.50 = 5 kilograms	**2**
c)	B. 0.5	**1**
d)	0.75 × 100 = 75; 0.75 ÷ 100 = 0.0075	**1**

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6.B Decimals

a)	$2 \times (7.5 + 4.2) = 2 \times 11.7 = 23.4$ cm	**2**
b)	$7.5 \times 4.2 = 31.5$ square centimetres	**2**
c)	B. 0.54	**1**
d)	$18.4 \div 4 = 4.6$ cm	**1**

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