



# education

Department of  
Education  
FREE STATE PROVINCE

**GRADE 8**

**MATHEMATICS**

**2026 TERM 1**

**CLASS ASSIGNMENT**

**MARKS: 50**

**TIME: 120 MINUTES**

**This question paper consists of 3 pages including cover page.**

**QUESTION 1**

Consider the options and write down the letter of the correct option in your answer sheet

1.1 Which of the following is equal to  $8 \times 77$ ? (1)

A  $8 \times 7 + 8 \times 7$

B  $8 \times 70 + 8 \times 7$

C  $8 \times 70 + 7$

D  $8 \times 70 \times 7$

1.2. Which expression represents the distributive property in  $(-4 + 7) \times 11$ ? (1)

A  $(-4 \times 11) + [(-4) \times 7]$

B  $-4 \times (7 \times 11)$

C  $-4 + (7 \times 11)$

D  $(-4 \times 11) + (7 \times 11)$

1.3 Luke buys a bag of 90 chocolates for R400. He sells them at R5 each. If he sells all the items, how much profit is he going to make? (1)

A R69

B R50

C R28

D R5

1.4 What is the simplified form of  $\frac{8}{12}$ ? (1)

A  $\frac{16}{24}$

B  $\frac{24}{36}$

C  $\frac{32}{48}$

D  $\frac{2}{3}$

1.5 Calculate the value of  $\sqrt{4 + \frac{9}{4}}$  (1)

A  $\frac{7}{2}$

B  $\frac{13}{2}$

C  $\frac{5}{2}$

D  $\frac{3}{2}$

**[5]**

**QUESTION 2**

2.1 Write the following ratios in its simplest form.

42 : 66 (1)

2.2 Divide R350 in the ratio 2 : 5 (3)

2.3 Decrease 32 in the ratio of 3:4 (2)

2.4 Mr. Mkhize Washes 13 cups each minute. How many cups will he wash in 4 minutes? (2)

2.5 Use prime factorisation to determine LCM and HCF of 156 and 264. (4)

**[12]**

**QUESTION 3**

Calculate without the use of a calculator:

3.1  $-10 + (-3)$  (2)

3.2  $5 - (-2) + (+12) - 4$  (3)

3.3  $(-9 + 3)^2 \div (-6 \times 3)$  (4)

3.4  $216 - 16 \div \sqrt[3]{-64} \times 2$  (4)

3.5  $\sqrt{9 + \sqrt[3]{27}} + 4 \times 6$  (4)

**[17]**

**QUESTION 4**

Calculate without the use of a calculator:

4.1  $\frac{3}{4} - \frac{1}{4}$  (2)

4.2  $1\frac{4}{5} + 2\frac{1}{25}$  (4)

4.3  $\sqrt{1\frac{23}{121}}$  (3)

4.4  $4 - \left(-\frac{3}{4}\right)\left(-\frac{2}{3}\right)^2$  (4)

4.6  $2\frac{1}{2} \div 1\frac{1}{2} \times \frac{2}{5}$  (3)

**[16]**



# education

Department of  
Education  
FREE STATE PROVINCE

**GRADE 8**

*Stanmorephysics.com*  
**MATHEMATICS**

**2026 ASSIGNMENT TEST**

**MARKING GUIDELINES**

*Stanmorephysics.com*

This question paper consists of 8 pages including cover page.

**GENERAL MARKING NOTE:**

1. Give full marks for answers only, unless otherwise stated.
2. Accept any alternative correct solution that is not included in the memorandum.

3.

SYMBOL	KEY
M	Method mark
CA	Consistency Accuracy Mark
A	Accuracy Marking



QUESTION 1		
1.1	Which of the following is equal to $8 \times 77$ ?	(1)
Option	Possible answers	Errors and Misconceptions
A	$8 \times 7 + 8 \times 7$	
B	$8 \times 70 + 8 \times 7$	✓ Correct response
C	$8 \times 70 + 7$	
D	$8 \times 70 \times 7$	
1.2	Which expression represents the distributive property in $(-4 + 7) \times 11$ ?	(1)
Option	Possible answers	Errors and Misconceptions
A	$(-4 \times 11) + [(-4) \times 7]$	
B	$-4 \times (7 \times 11)$	
C	$-4 + (7 \times 11)$	
D	$(-4 \times 11) + (7 \times 11)$	✓ Correct response
1.3	Luke buys a bag of 90 chocolates for R400. He sells them at R5 each. If he sells all the items, how much profit is he going to make?	(1)
Option	Possible answers	Errors and Misconceptions
A	R69	
B	R50	✓ Correct response
C	R28	
D	R5	
1.4	What is the simplified form of $\frac{8}{12}$ ?	(1)
Option	Possible answers	Errors and Misconceptions
A	$\frac{16}{24}$	
B	$\frac{24}{36}$	
C	$\frac{32}{48}$	
D	$\frac{2}{3}$	✓ Correct response

1.5	Calculate the value of $\sqrt{4 + \frac{9}{4}}$ ? (1)	
Option	Possible answers	Errors and Misconceptions
A	$\frac{7}{2}$	
B	$\frac{13}{2}$	
C	$\frac{5}{2}$	✓ Correct response
D	$\frac{3}{2}$	



QUESTION 2																								
2.1	Write the following ratios in its simplest form. $42 : 66$ $= 7 : 11$	✓ 7 : 11 (1)																						
2.2	Divide R350 in the ratio 2 : 5 $2 + 5 = 7$ $\frac{2}{7} \times R350 = R100$ $\frac{5}{7} \times R350 = R250$	✓ 7 ✓ R100 ✓ R250 (3)																						
2.3	Decrease 32 in the ratio of 3:4 $\frac{3}{4} \times 32 = 24$	✓ $\frac{3}{4} \times 32$ ✓ 24 (2)																						
2.4	Mr. Mkhize Washes 13 cups each minute. How many cups will he wash in 4 minutes? $13 \rightarrow 1$ minute $13 \times 4 \rightarrow 4$ minute 52 cups will be washed in 4 minutes	✓✓ 52 (2)																						
2.5	Use prime factorisation to determine LCM and HCF of 156 and 264. <table style="display: inline-table; margin-right: 20px; border-collapse: collapse;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">156</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">78</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">3</td><td style="padding: 2px 5px;">39</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">13</td><td style="padding: 2px 5px;">13</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;"></td><td style="padding: 2px 5px;">1</td></tr> </table> <table style="display: inline-table; border-collapse: collapse;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">264</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">132</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">66</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">3</td><td style="padding: 2px 5px;">33</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">11</td><td style="padding: 2px 5px;">11</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;"></td><td style="padding: 2px 5px;">1</td></tr> </table> $156 = 2^2 \times 3 \times 13$ $264 = 2^3 \times 3 \times 11$ $\therefore HCF = 2^2 \times 3 = 12$ $\therefore LCM = 2^3 \times 3 \times 11 \times 13 = 3432$	2	156	2	78	3	39	13	13		1	2	264	2	132	2	66	3	33	11	11		1	✓✓ prime factorisation ✓ 12 ✓ 13 728 (4)
2	156																							
2	78																							
3	39																							
13	13																							
	1																							
2	264																							
2	132																							
2	66																							
3	33																							
11	11																							
	1																							
		<b>[12]</b>																						

<b>QUESTION 3</b>		
Calculate without the use of a calculator:		
3.1	$-10 + (-3)$ $= -10 - 3$ $= -13$	 <ul style="list-style-type: none"> <li>✓ -3</li> <li>✓ -13</li> </ul> <p style="text-align: right;">(2)</p>
3.2	$5 - (-2) + (+12) - 4$ $= 5 + 2 + 12 - 4$ $= 15$	 <ul style="list-style-type: none"> <li>✓ 2</li> <li>✓ 12</li> <li>✓ 15</li> </ul> <p style="text-align: right;">(3)</p>
3.3	$(-9 + 3)^2 \div (-6 \times 3)$ $= (-6)^2 \div -18$ $= 36 \div -18$ $= -2$	 <ul style="list-style-type: none"> <li>✓ -6</li> <li>✓ -18</li> <li>✓ 36</li> <li>✓ 36</li> </ul> <p style="text-align: right;">(4)</p>
3.4	$216 - 16 \div \sqrt[3]{-64} \times 2$ $= 216 - 16 \div -4 \times 2$ $= 216 + 4 \times 2$ $= 216 + 8$ $= 224$	 <ul style="list-style-type: none"> <li>✓ -4</li> <li>✓ 4</li> <li>✓ 8</li> <li>✓ 224</li> </ul> <p style="text-align: right;">(4)</p>
3.5	$\sqrt{9 + \sqrt[3]{27} + 4 \times 6}$ $= \sqrt{9 + 3 + 4 \times 6}$ $= \sqrt{9 + 3 + 24}$ $= \sqrt{36}$ $= 6$	 <ul style="list-style-type: none"> <li>✓ 3</li> <li>✓ 24</li> <li>✓ 36</li> <li>✓ 6</li> </ul> <p style="text-align: right;">(4)</p>
		<b>[17]</b>

QUESTION 4		
4.1	$\frac{3 - \frac{1}{4}}{4}$ $= \frac{2}{4}$ $= \frac{1}{2}$	$\checkmark \frac{2}{4}$ $\checkmark \frac{1}{2}$ <p style="text-align: right;"><b>(2)</b></p>
	$1\frac{4}{5} + 2\frac{1}{25}$ $= \frac{9}{5} + \frac{51}{25}$ $= \frac{45}{25} + \frac{51}{25}$ $= \frac{96}{25}$	$\checkmark \frac{9}{5}$ $\checkmark \frac{51}{25}$ $\checkmark \frac{45}{25}$ $\checkmark \frac{25}{25}$ $\checkmark \frac{96}{25}$ <p style="text-align: right;"><b>(4)</b></p>
	$\sqrt{1\frac{23}{121}}$ $= \sqrt{\frac{144}{121}}$ $= \frac{12}{11}$ $= 1\frac{1}{11}$	$\checkmark \frac{144}{121}$ $\checkmark \frac{12}{11}$ $\checkmark 1\frac{1}{11}$ <p style="text-align: right;"><b>(3)</b></p>
	$4 - \left(-\frac{3}{4}\right)\left(-\frac{2}{3}\right)^2$ $= 4 - \left(-\frac{3}{4}\right)\left(\frac{4}{9}\right)$ $= 4 + \frac{1}{3}$ $= \frac{13}{3}$ $= 4\frac{1}{3}$	$\checkmark \left(\frac{4}{9}\right)$ $\checkmark \frac{1}{3}$ $\checkmark \frac{13}{3}$ $\checkmark 4\frac{1}{3}$ <p style="text-align: right;"><b>(4)</b></p>
3.6	$2\frac{1}{2} \div 1\frac{1}{2} \times \frac{2}{5}$ $= \frac{5}{2} \div \frac{3}{2} \times \frac{2}{5}$ $= \frac{5}{2} \times \frac{2}{3} \times \frac{2}{5}$ $= \frac{2}{3}$	$\checkmark \frac{5}{2} \div \frac{3}{2}$ $\checkmark \times \frac{2}{3}$ $\checkmark \frac{2}{3}$ <p style="text-align: right;"><b>(3)</b></p>
		<b>[16]</b>