

GRADE 9 JUNE TEST REVISION 2026

As you prepare for your June Test, remember that consistent practice leads to success. Take time each day to revise work, practice your calculations and ask for help where needed. Mistakes are part of learning and use them to improve!

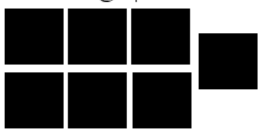
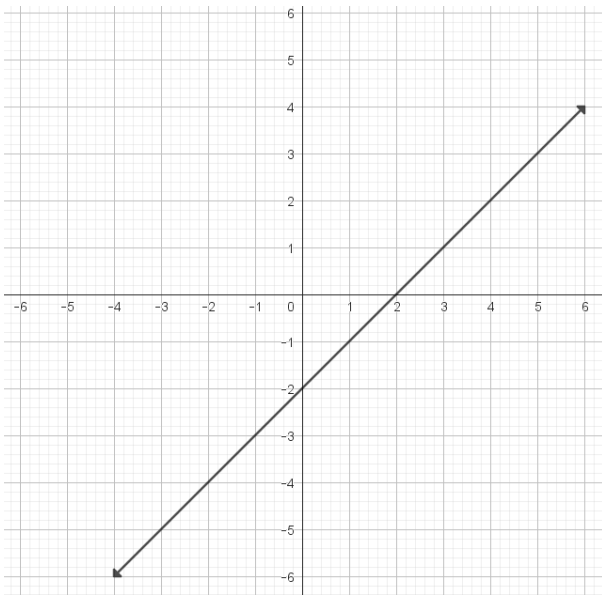
Stay focused, manage your time well and believe in your ability to succeed. With dedication and a positive attitude, you can achieve your goals!

DO YOUR BEST! YOU ARE CAPABLE OF MORE THAN YOU THINK!

<u>Activity 1</u>		
1.1	Calculate each of the following without the use of a calculator.	
	1.1.1	$8 - (-4 + 1 + 3)$
	1.1.2	$16(-9 + 3 + 2)$
	1.1.3	$25 - [-6 + 2 + 3(4 - 5)]$
	1.1.4	$-2[-6 + (3 - 2(4 - 8))] + 1$
	1.1.5	$18 - [\sqrt{49} + (-3)^3 - (-2)^2]$
	1.1.6	$[(-2)^5 + \sqrt{121}] - [(-3)^2 + (-2^3 - \sqrt[3]{27})]$
1.2	Simplify the following ratios	
	1.2.1	15 : 25
	1.2.2	48 : 36
	1.2.3	750g : 2kg
	1.2.4	45min : 2hours
1.3	1.3.1	Increase 80 in ratio 4 : 5.
	1.3.2	The price of R240 increases in the ratio 3 : 5. What is the new price?
	1.3.3	A rectangles length of 10cm increased in ratio 5 : 4. Find the new length
	1.3.4	Decrease R350 in the ratio 7 : 4.
	1.3.5	A population of 5 000 sparrows decreases in the ratio 20 : 19.

1.4	1.4.1	Divide R150 between John and Thembi in ratio 2 : 3.
	1.4.2	The ratio of boys to girls is 4 : 5. If there are 36 students, how many girls are there?
	1.4.3	The perimeter of a rectangle is 60cm. The ratio of the length to width is 3 : 2. Find the length and width in cm.
	1.4.5	A community project delivered 96 food parcels to a school. The principal distributes them between boys and girls in the ratio 4 : 8. a) How many food parcels were given to girls? b) What percentage of the food parcels were given to the boys?
1.5	1.5.1	A car travels 120km on 10 litres of petrol. How far can the car travel on 25 litres?
	1.5.2	3 Taps fill a pool in 12 hours. How many taps are needed to fill it in 9 hours?
	1.5.3	A distance is covered in 3 hours at 80km/h. If the car drives the same distance at a constant speed of 105km/h. How long will it take to cover the distance? Give your answer in hours and minutes
1.6	1.6.1	Calculate the final amount if R2 500 is invested at 10% p.a simple interest for 5 years.
	1.6.2	Which is a better investment: a) R1 000 for 5 years at 12% simple interest or b) for 6 years at 10% simple interest.
	1.6.3	At a furniture shop, the selling price of a fridge is R5 500. If bought on hire purchase with a 20% deposit and a 15% p.a simple interest for 3 year. Calculate the total cost of the fridge.
	1.6.4	If R5 000 is invested at 6% p.a compound interest: a) What is the investment worth after 4 years. b) How much is the investment after 4 years worth if you convert the currency to dollars. R1 = \$19,67
	1.6.5	A bank offers 12% p.a simple interest while another offers 11% p.a compound interest. Which is the better option for a R10 000 investment over 5 years?
Activity 2		
2.1	Simplify: (Make negative exponents positive)	
	2.1.1	$x^3 \times x^5$
	2.1.2	$y^8 \div y^3$
	2.1.3	$(a^2)^4$
	2.1.4	$b^7 \times b^{-4}$
	2.1.5	$(a^3)^2 \div a^4$
	2.1.6	$\frac{-12a^{12}b^4}{3a^3b^4}$
	2.1.7	$\sqrt{\frac{16x^{16}}{x^4}}$
	2.1.8	$\sqrt[3]{-27a^9b^{12}}$
	2.1.9	$\left(\frac{2a^{-2}b}{a^3b^{-4}}\right)^{-2}$
	2.1.10	$(a^2b)^3 \times \frac{a^4b}{ab^3}$
	2.1.11	$(ab^3)^0$
	2.1.12	$\frac{x^5y^{-3}}{(x^2y^2)^2} \times \left(\frac{1}{xy^2}\right)^{-1}$
	2.1.13	$\frac{8m^2n}{9m^{-3}n^2} \div \frac{16m^3n^{-1}}{3m^4n}$
	2.1.14	$\frac{ab^2c}{(abc^2)^2} \times \frac{(a^{-2}b^3c)^{-1}}{a^0b^4}$

2.2	Simplify																				
	2.2.1	$x(5x + 1)$			2.2.1 $2x(3x - 4y)$																
	2.2.3	$(x - 4)(x - 1)$			2.2.4 $\left(\frac{2}{3}x + 1\right)(x - 1)$																
	2.2.5	$-2(3x + y)(5x - 4y)$			2.2.6 $(1 + 7b)^2$																
	2.2.7	$\frac{8a^3-2a^2+4a}{-2a}$			2.2.8 $\frac{x^2-2x-15}{x^2-25}$																
2.3	Factorise																				
	2.3.1	$3x + 18$			2.3.2 $5x^2 - 10x$																
	2.3.3	$12abc + 18ab^2$			2.3.4 $z^3 - 36$																
	2.3.5	$y^2 - 100$			2.3.6 $x^2 + 5x + 6$																
	2.3.7	$a^2 - 7a + 10$			2.3.8 $x^2 + 2x - 15$																
2.4	Determine the value of x in the following equations																				
	2.4.1	$2(x + 3) = 14$			2.4.2 $6(x - 2) = 3(x + 4)$																
	2.4.3	$\frac{x-4}{5} + 2 = 6$			2.4.4 $\frac{2(x+3)}{3} = \frac{x-1}{2}$																
	2.4.5	$2^x = 2^5$			2.4.6 $7^{3x} = 7^{x+4}$																
	2.4.7	$8^x = 2^9$			2.4.8 $4^{x+1} = 2^6$																
	2.4.9	$(4^x)^2 = 2^8$																			
Activity 3																					
	3.1	Give the next three terms in the sequence: 2; 11; 20; ... ; ...;																			
	3.2	Use the table to answer the questions that follow: <table><tr><td>x</td><td>1</td><td>2</td><td>3</td><td>4</td><td>10</td><td>B</td></tr><tr><td>y</td><td>-2</td><td>1</td><td>4</td><td>7</td><td>A</td><td>40</td></tr></table>						x	1	2	3	4	10	B	y	-2	1	4	7	A	40
x	1	2	3	4	10	B															
y	-2	1	4	7	A	40															
	3.2.1	Determine the general rule for the sequence.																			
	3.2.2	Determine the missing value A.																			
	3.2.3	Determine the missing value B.																			

	3.3	Consider the following sequence: 6; -1; -8; ...
	3.3.1	Determine the general rule for the sequence. Write the rule in the form $Tn = an + b$
	3.3.2	What is the value of the 20 th term in the sequence?
	3.3.3	Which term in the pattern will have a value of -427
	3.4	Given the following pattern: Fig 1  Fig 2  Fig 3 
	3.4.1	Determine the number of blocks in Figure 4
	3.4.2	Determine the rule for the following geometric pattern.
	3.4.3	Determine if there is a Figure with 30 blocks.
Activity 4		
	4.1	Determine the coordinates of the x – and y – intercepts of the straight line given below.
		
	4.2	What is the gradient of the line perpendicular to the line with equation?
		$3y + 2x - 4 = 0$
	4.3	Determine the equation of the straight line that goes through the points:
		A(-1; 3) and B(-4; -6) in the form $y = mx + c$

	4.4	In the diagram $AB \parallel CD$ and CD passes through the point $(1; 2)$. What is the equation of CD ?
		The diagram shows a Cartesian coordinate system with a horizontal x-axis and a vertical y-axis. Two parallel lines, labeled AB and CD, are drawn. Line AB is on the left and has a slope triangle drawn on it with a vertical side of length 3 and a horizontal side of length 2, indicating a slope of $-\frac{3}{2}$. Line CD is on the right and passes through the point $(1; 2)$, which is marked with a dot and labeled. Arrows on the lines indicate they are parallel.