basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

2025 National ATP: MATHEMATICS GRADE 10 – TERM 1

TERM 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Topics	Algebraic expressions				Exponents, equations and inequalities				Trigonometry		
Date Suggested	15 Jan – 07 Feb (18 days)				10 Feb – 07 Mar (20 days)				10 Mar – 28 Mar (14 days)		
Date completed											
SBA	Investigation or project (by the end week 6)				&				Test (content of term 1)		

2025 National ATP: MATHEMATICS GRADE 10 – TERM 2

TERM 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 - 9	Week 10	Week 11	Week 12
Topics	Euclidean Geometry				Analytical Geometry		Functions (linear and parabola)		Exam		
Date Suggested	08 April – 1 May (17 days)				05 May – 16 May (10 days)		19 May – 06 June (15 days)		09 June – 27 June		
Date completed											
SBA	Assignment						Mid-Year Exam				

2025 National ATP: MATHEMATICS GRADE 10 – TERM 3

TERM 3	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Topics	Functions (hyperbola and exponent)		Trig functions		Trigonometry (2D)	Statistics		Probability		Finance and growth	
Date Suggested	22 July – 01 Aug (08 days)		04 Aug – 15 Aug (10 days)		18 – 22 Aug (5 days)	25 Aug – 5 Sept (10 days)		8 Sept – 19 Sept (10 days)		22 Sept – 03 Oct (10 days)	
Date completed											
SBA	Test (Completed by week 6)					Test					

2025 National ATP: MATHEMATICS GRADE 10 – TERM 4

TERM 4	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Topics	Measurement		Number Patterns	Revise Algebra	Revise Trigonometry & Geometry	Revise Functions	Examination			Admin
Date Suggested	13 Oct 24 Oct (10 days)		27 – 31 Oct	3 – 7 Nov	10 – 14 Nov	17 – 21 Nov	24 Nov -			
Date completed										
SBA	Test (Completed by week 4)									

EXAM	
PAPER 1	
Algebra	30
Number Patterns	15
Finance, growth	10
Functions and Graphs	30
Probability	15
PAPER 2	
Statistics	15
Analytical Geometry	15
Trigonometry	40
Euclidean Geometry & Measurement	30

TOTAL NUMBER OF SBA TASKS 7

basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

2025 National ATP: MATHEMATICS GRADE 10 – TERM 1

TERM 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Topics	**Algebraic expressions**				**Exponents, equations and inequalities**				**Trigonometry**		
	1. Understand that real numbers can be rational or irrational. 2. Establish between which two integers a given simple surd lies. 3. Round real numbers to an appropriate degree of accuracy. 4. Multiplication of a binomial by a trinomial. 5. Factorization to include types taught in Grade 9 and: • trinomials • grouping in pairs • sum and difference of two cubes 6. Simplifying, adding and subtracting algebraic fractions using factorization with denominators of cubes (limited to sum and difference of cubes).				1. Revise laws of exponents learnt in Grade 9 where $x, y > 0; m, n \in \mathbb{Z}$: • $x^m \times x^n = x^{m+n}$ • $x^m \div x^n = x^{m-n}$ • $(x^m)^n = x^{mn}$ • $x^m \times y^m = (xy)^m$ Also, by definition: $x^{-n} = \frac{1}{x^n}, x \neq 0$ and $x^0 = 1, x \neq 0$ 2. Use the laws of exponents to simplify expressions and solve equations, accepting that the rules also hold for $m, n \in$ **Q.** 3. 3.1. Revise the solution of linear equations. 3.2. Solve quadratic equations (by factorisation). 3.3. Solve simultaneous linear equations in two unknowns. 3.4. Solve word problems involving linear, quadratic or simultaneous linear equations. 3.5. Solve literal equations (changing the subject of a formula). 3.6. Solve linear inequalities (and show solution graphically). Interval notation must be known.				1. Define the trigonometric ratios $\sin\theta$, $\cos\theta$ and $\tan\theta$. Using the right – angled triangle. 2. Extend the definitions of $\sin\theta$, $\cos\theta$ and $\tan\theta$ for $0° \leq \theta \leq 360°$. 3. Use a diagram to determine the numerical values of ratios for angles from 0° to 360° 4. Define the reciprocal of the trigonometric ratios $\text{cosec}\,\theta$, $\sec\theta$ and $\cot\theta$, using the right – angled triangles (these three reciprocals should be examined in grade 10 only) 5. Derive values of the trigonometric ratios for the special cases (without using a calculator) $\theta \in \{0°; 30°; 45°; 60°; 90°\}$ 6. Solve simple trigonometric equations for angles between 0° and 90° 7. Solve two dimensional problems involving right angled - triangle		
Date completed											
SBA	**Investigation or project**				**&**				**Test (content of term 1)**		

2025 National ATP: MATHEMATICS GRADE 10 – TERM 2

TERM 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8 - 9	Week 10	Week 11	Week 12
Topics	**Euclidean Geometry**				**Analytical Geometry**		**Function (Linear and parabola)**		**Exam**		
	1. Revise basic results established in earlier grades regarding lines, angles and triangles, especially the similarity and congruence of triangles. 2. Define the following special quadrilaterals the Kite, parallelogram, rectangle, rhombus, square and trapezium. Investigate and make conjectures about the properties of the sides, angles, diagonals and areas of these quadrilaterals. Prove these conjectures. 3. Investigate line segment joining the midpoints of two sides of a triangle. 4. Solve problems and prove riders using the properties of parallel lines, triangles, quadrilaterals and midpoint theorem.				1. Represent quadrilaterals amongst other geometric figures on a Cartesian co-ordinate system. Derive and apply for any two points $(x_1; y_1)$ and $(x_2; y_2)$ the formulae for calculating the: • distance between the two points; • gradient of the line segment connecting the two points (and from that identify parallel and perpendicular lines); and • Coordinates of the mid-point of the line segment joining the two points.		1. The concept of a function, where a certain quantity (output value) uniquely depends on another quantity (input value). Work with relationships between variables using tables, graphs, words and formulae. Convert flexibly between these representations. **Note**: that the graph defined by $y = x$ should be known from Grade 9. 2. Point by point plotting of basic graphs defined by $y = x^2$, to discover shape, domain (input values), range (output values), asymptotes, axes of symmetry, turning points and intercepts on; the axes (where applicable). 3. Investigate the effect of a and q on the graphs defined by, $y = a.f(x) + q$, where $f(x) = x$, $f(x) = x^2$ 4. Sketch graphs, find the equations of given graphs and interpret graphs. **Note**: Sketching of the graphs must be based on the observation of the effect number 3 and number 5.	June Examination		
Date completed											
SBA	**Assignment**						**Mid-Year Exam**				

basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

2025 National ATP: MATHEMATICS GRADE 10 – TERM 3

TERM 3	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Topics	**Function (hyperbola and exponential)**		**Trig functions**		**Trigonometry (2D)**	**Statistics**		**Probability**		**Finance and growth**	
	5. Point by point plotting of basic graphs defined by $y = \frac{1}{x}$ and $y = b^x; b > 0$ and $b \neq 1$ to discover shape, domain (input values), range (output values), asymptotes, axes of symmetry and intercepts on; the axes (where applicable). 6. Investigate the effect of a and q on the graphs defined by, $f(x) = \frac{1}{x}$ and $f(x) = b^x, b > 0, b \neq 1$. 7. Sketch graphs, find the equations of given graphs and interpret graphs. **Note**: Sketching of the graphs must be based on the observation of the effect number 3 and number 5.		8. Point by point plotting of basic graphs defined by $y = sin\theta$; $y = \cos\theta$ and $y = tan\theta$ for $\theta \in [0°; 360°]$ 9. Study the effect of a and q on the graphs defined by: $y = a\sin\theta + q$; $y = a\cos\theta + q$; and $y = a\tan\theta + q$ where a and $q \in Q$and $\theta \in [0°; 360°]$ 10. Sketch graphs, find the equations of given graphs and interpret graphs. **Note**: Sketching of the graphs must be based on the observation of the effect number 3 and number 5.		1. Solve two dimensional problems involving right angled – triangle 2. Problems in two dimensional	1. Measures of central tendency in ungrouped data. Calculate the mean. Determine the median and the mode. 2. Measures of central tendency in grouped data: calculation of mean estimate of grouped data and identification of modal interval and interval in which the median lies. 3. Range as a measure of dispersion and extension to include percentiles, quartiles, inter-quartile and semi-inter-quartile range. 4. Five number summary (maximum, minimum and quartiles) and box and whisker diagram. 5. Use the statistical summaries (measures of central tendency and dispersion), and graphs to analyse and make meaningful comments on the context associated with the given data. 6. Histogram		1. The use of probability models to compare the relative frequency of events with the theoretical probability. 2. The use of Venn diagrams to solve probability problems, deriving and applying the following for any two events in a sample space S: • $P(A\ or\ B) = P(A) + P(B) - P(A\ and\ B)$. • A and B are Mutually exclusive if $P(A\ and\ B) = 0$; • A and B are complementary if they are, ➢ mutually exclusive and $P(A) + P(B) = 1$. Then $P(B) = P(not\ A) = 1 - P(A)$		1. Use the simple and compound growth formulae $[A = P(1 + in)$ and $A = P(1 + i)^n]$ to solve problems, including interest, hire purchase, inflation, population growth and other real-life problems. Understand the implication of fluctuating foreign exchange rates (e.g. on the petrol price, imports, exports, overseas travel).	
Date completed											
SBA	**Test**					**Test**					

2025 National ATP: MATHEMATICS GRADE 10 – TERM 4

TERM 4	Week 1	Week 2	Week 3	Week 4		Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	EXAM	
Topics	**Measurement**		**Number Patterns**	**Revise Algebra**		**Revise Trigonometry & Geometry**	**Revise Functions**	**Examination**			**Admin**	**PAPER 1** **Algebra** **Number Patterns** **Finance, growth** **Functions and Graphs** **Probability**	 **30** **15** **10** **30** **15**
	1. Revise the volume and surface areas of right-prisms and cylinders. 2. Study the effect on volume and surface area when multiplying any dimension by a constant factor k. 3. Calculate the volume and surface areas of spheres, right pyramids, right cones and combination of those objects (figures).		Patterns: Investigate number patterns leading to those where there is a constant difference between consecutive terms, and the general term (without using a formula-see content overview) is therefore linear.										
Date completed												**PAPER 2** **Statistics** **Analytical Geometry** **Trigonometry** **Euclidean Geometry & Measurement**	 **15** **15** **40** **30**
SBA	**Test**												
	TOTAL OF 7 SBA TASKS												