Year 12 Mathematical Methods
Work rate calendar (WRC) 2024 — Term 1

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment and submission dates. Adjustments will be communicated via QLearn or during lessons.

Assessment	
Supervised assessment	Summative exams are to be supervised by the student's official exam supervisor.
Non-supervised assessment	Students must sign declaration of academic integrity.

Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	22 Jan – 26 Jan	Unit 3	Monday 22 January — Welcome calls for students: Prep – Year 12 Wednesday 24 January — Learning for success: Prep – Year 12 Friday 26 January — Australia Day Holiday Lesson 1 Review of Unit 3 work covered in Year 11	Refer to Learning Guides
2	29 Jan – 2 Feb		**Topic 3 Integrals** Lesson 1 Indefinite integrals, constant of integration Lesson 2 Indefinite integrals, linear motion applications Lesson 3 Differentiation review	
3	5 Feb – 9 Feb		Friday 9 February — Senior orientation day: Years 10–12 Lesson 1 Integration by recognition Lesson 2 Integration by recognition Lesson 3 Catch up/Tutorial	
4	12 Feb – 16 Feb		Lesson 1 Area approximation, trapezoidal rule Lesson 2 Fundamental theorem of calculus Lesson 3 Applications of integration — area under a curve	
5	19 Feb – 23 Feb		Lesson 1 Applications of integration — area between curves Lesson 2 Applications of integration — total change Lesson 3 Applications of integration — displacement given acceleration and initial conditions	
6	26 Feb – 1 Mar		**Revision** Lessons 1 – 3 Revision	
7	4 Mar – 8 Mar		Lessons 1 – 3 Revision	
8	11 Mar – 15 Mar		**Revision and Exam** Lessons 1 – 3 Revision	**IA2 Exam** To be received at BrisbaneSDE by 5 pm Friday 15 March
9	18 Mar – 22 Mar	Unit 4	**Topic 3 Discrete random variables 2** Lesson 1 Bernoulli random variables, mean and variance Lesson 2 Binomial random variables including conditional probability Lesson 3 Applications of binomial random variables	
10	25 Mar – 29 Mar		Thursday 28 March — Cross country / Fun run: Prep – Year 12 Friday 29 March — Good Friday Lesson 1 Binomial distributions – mean and variance Lesson 2 Modelling binomial distributions Lesson 3 Catch-up/Tutorial	

LEGEND	Class work — send-in	Summative assessment	Exam block	School events	Public holidays	Student free day

Year 12 Mathematical Methods
Work rate calendar (WRC) 2024   Term 2

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment and submission dates. Adjustments will be communicated via QLearn or during lessons.

Assessment	
Supervised assessment	Summative exams are to be supervised by the student's official exam supervisor.
Non-supervised assessment	Students must sign declaration of academic integrity.

Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	15 Apr – 19 Apr		**Topic 1 Further differentiation and applications 3** Lesson 1 Concept of the second derivative and acceleration Lesson 2 Concavity, points of inflection Lesson 3 Sketching functions, concavity and points of inflection	Refer to Learning Guides
2	22 Apr – 26 Apr		Thursday 25 April — Anzac Day Lesson 1 Sketching functions, concavity and points of inflection Lesson 2 Optimisation — function given Lesson 3 Catch-up/Tutorial	
3	29 Apr – 3 May		Lessons 1 – 2 Optimisation — function not given **Topic 4 Continuous random variables and the normal distribution** Lesson 3 Probability estimates and the probability density function	
4	6 May – 10 May		Monday 6 May — Labour Day Lesson 1 Hybrid probability density functions Lesson 2 Cumulative distribution functions Lesson 3 Catch-up/Tutorial	
5	13 May – 17 May	Unit 4	Lesson 1 E(X) of a continuous random variable, review limits and integration by recognition Lesson 2 Var(X) and SD(X) of a continuous random variable Lesson 3 Normal random variables, pdf with mean and std deviation	
6	20 May – 24 May		Lesson 1 Standardised normal variables, z scores, pdf with mean and std deviation Lessons 2 – 3 Normal probabilities, quantiles, modelling	
7	27 May – 31 May		**Topic 2 Trigonometric functions 2** Lesson 1 SOHCAHTOA, unit circle, periodicity Lessons 2 – 3 Review solving trigonometric functions	
8	3 Jun – 7 Jun		Lesson 1 Sine rule for non-right-angled triangles Lesson 2 Sine rule — the ambiguous case Lesson 3 Cosine rule for non-right-angled triangles	
9	10 Jun – 14 Jun		Lesson 1 Area rule for non-right-angled triangle, bearings Lessons 2 – 3 Modelling in 2 and 3 dimensional contexts	
10	17 Jun – 21 Jun		Thursday 20 June — Senior formal: Year 12 Friday 21 June — Athletics carnival / Sports day: Prep – Year 12 **Topic 5 Interval estimates for proportions** Lesson 1 Random samples, bias Lesson 2 Variability, sample proportion, mean and standard deviation Lesson 3 Catch-up/Tutorial	

LEGEND	Class work — send-in	Summative assessment	Exam block	School events	Public holidays	Student free day

Year 12 Mathematical Methods
Work rate calendar (WRC) 2024   Term 3

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment and submission dates. Adjustments will be communicated via QLearn or during lessons.

Assessment	
Supervised assessment	Summative exams are to be supervised by the student's official exam supervisor.
Non-supervised assessment	Students must sign declaration of academic integrity.

Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	8 Jul – 12 Jul	Unit 4	**Topic 5 Interval estimates for proportions** Lesson 1 Approximate normality of sample proportion, random sampling, interval estimates Lessons 2 – 3 Margin of error, confidence intervals, simulations	
2	15 Jul – 19 Jul		**Revision** Lessons 1 – 3 Revision	
3	22 Jul – 26 Jul		Lessons 1 – 3 Revision	
4	29 Jul – 2 Aug		**Revision and Exam** Lessons 1 – 3 Revision	**IA3 Exam** To be received at BrisbaneSDE by 5 pm Friday 2 August
5	5 Aug – 9 Aug	Units 3 & 4	**Revision** Lessons 1 – 3 Revision	
6	12 Aug – 16 Aug		Wednesday 14 August — Royal Queensland (Ekka) Show Holiday Lessons 1 – 3 Revision	
7	19 Aug – 23 Aug		Lessons 1 – 3 Revision	
8	26 Aug – 30 Aug		**Mock exams: Year 12** Monday 26 August – Thursday 29 August Friday 30 August — Student free day	
9	2 Sept – 6 Sept		**Mock exams: Year 12** Monday 2 September – Friday 6 September	
10	9 Sept – 13 Sept		Friday 13 September — Connect excursion: Years 10–12 **Revision** Lessons 1 – 3 Revision	

| LEGEND | Class work — send-in | Summative assessment | Exam block | School events | Public holidays | Student free day |

Year 12 Mathematical Methods
Work rate calendar (WRC) 2024   Term 4

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment and submission dates. Adjustments will be communicated via QLearn or during lessons.

Assessment	
Supervised assessment	Summative exams are to be supervised by the student's official exam supervisor.
Non-supervised assessment	Students must sign declaration of academic integrity.

Week	Dates	Unit	Topic	Class work / Assessment to be submitted
1	30 Sept – 4 Oct		**Revision** Lessons 1 – 3 Revision	
2	7 Oct – 11 Oct		Monday 7 October — King's Birthday Holiday Lessons 1 – 3 Revision	
3	14 Oct – 18 Oct		Lessons 1 – 3 Revision	
4	21 Oct – 25 Oct	Units 3 & 4	**Exams: Year 12** Monday 21 October – Friday 25 October	
5	28 Oct – 1 Nov		**Exams: Year 12** Monday 28 October – Friday 1 November	
6	4 Nov – 8 Nov		**Exams: Year 12** Monday 4 November – Friday 8 November	
7	11 Nov – 15 Nov		**Exams: Year 12** Monday 11 November – Wednesday 13 November Thursday 14 November — Graduation: Year 12 Friday 15 November — Final day: Year 12	
8	18 Nov – 22 Nov			
9	25 Nov – 29 Nov			
10	2 Dec – 6 Dec			
11	9 Dec – 13 Dec			

LEGEND | Class work — send-in | Summative assessment | Exam block | School events | Public holidays | Student free day

Disclaimer: Information contained in this document is correct at time of publishing.

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