Statistics Past Paper Questions by Topic: The following questions are applicable to the 2017 onwards specification, but are taken from the old specification. However, the marks available for questions in the new A-level may be less due to the increased usage of calculators. Remember ensure you show adequate working!

## Representing Data

## Mean

- S1 June 2014 - Question 6(c)
- S1 June 2013-Question 4(a)
- S1 January 2013 - Question 5(c)
- S1 January 2011 - Question 5(b)
- S1 January 2011 - Question 2
- S1 January 2010 - Question 3(a)(b)(c)
- S1 January 2008-Question 2(a)


## Median and Quartiles

- S1 June 2014-Question 6(b)
- S1 June 2013-Question 4(b)
- S1 January 2013 - Question 5(b)
- S1 January 2012 - Question 4(b)
- S1 January 2011 - Question 5(a)
- S1 January 2011 - Question 2
- S1 January 2010 - Question 3(d)
- S1 January 2008-Question 2b


## Standard Deviation

- S1 June 2014-Question 6(c)
- S1 June 2013-Question 4(a)
- S1 January 2013 - Question 5(c)
- S1 January 2011 - Question 5(b)
- S1 January 2010 - Question 3(c)
- S1 January 2008 - Question 2(a)


## Statistical Diagrams

- S1 June 2014 - Question 6(a)
- S1 June 2014 - Question 1
- S1 June 2013 - Question 2(b)(c)(d)
- S1 January 2013 - Question 5(a)
- S1 June 2012-Question 5
- S1 January 2012 - Question 4
- S1 January 2011 - Question 3
- S1 January 2010 - Question 2
- S1 June 2008-Question 2


## Probability

## Tree Diagrams

- S1 June 2014 - Question 4
- S1 June 2012- Question 7
- S1 January 2011 - Question 7
- S1 January 2010 - Question 1
- S1 June 2010-Question 2
- S1 June 2008-Question 1


## Venn Diagrams

- S1 June 2014 - Question 8
- S1 June 2013-Question 3(d)(e)
- S1 January 2013 - Question 7
- S1 June 2012 - Question 4
- S1 January 2012 - Question 6
- S1 June 2011 - Question 6
- S1 January 2010 - Question 4
- S1 June 2010 - Question 4
- S1 January 2008 - Question 5


## Discrete Random Variables

## Binomial Distribution

- S2 June 2014- Question 4
- S2 January 2013 - Question 3
- S2 June 2012 - Question 8
- S2 January 2012 - Question 3
- S2 June 2011 - Question 5(b)
- S2 June 2011 - Question 4(c)
- S2 January 2009-Question 5(a)(b)


## Normal Distribution

## Normal Distribution

- S1 June 2014-Question 7
- S1 June 2013 - Question 6
- S1 January 2013 - Question 4
- S1 June 2012- Question 6
- S1 January 2012 - Question 7
- S1 June 2011 - Question 4
- S1 January 2011 - Question 8
- S1 June 2010 - Question 7
- S1 January 2010 - Question 7
- S1 June 2008-Question 7
- S1 January 2008-Question 6


## Statistical Approximations

## Normal Approximation to the Binomial Distribution

- S2 June 2011 - Question 6


## Hypothesis Tests

## Binomial Distribution Hypothesis Tests

- S2 June 2014 - Question 5(c)(d)
- S2 January 2013 - Question 6
- S2 June 2012 - Question 2
- S2 January 2012 - Question 2
- S2 June 2011 - Question 6
- S2 January 2009 - Question 3


## Binomial Distribution Hypothesis Tests - Normal Approximation

- S2 June 2014 - Question 5(c)(d)


## Normal Distribution Hypothesis Tests

- S3 June 2010 - Question 1

Normal Distribution Hypothesis Tests (Difference of means) - You haven't done central limit theorem. But you can do all these questions ignoring that aspect. If you would like to understand the central limit theorem please see this resource:

- Central limit theorem


## Questions:

- Maths and Physics Tutor Collection of questions


## Correlation and Regression -New Spec Maths Genie

This has changed too significantly but Maths Genie have posted a set of questions by topic for all new A-level content. Here is a link to the AS and A-level correlation ones. The other topic questions will also be useful for revision. This site also contains videos for each topic.

- Maths Genie (AS) Correlation and Regression Questions
- Maths Genie (AS) Correlation and Regression Answers
- Maths Genie (A Level) Correlation Hypothesis Testing Questions
- Maths Genie (A Level) Correlation Hypothesis Testing Answers

Mechanics Past Paper Questions by Topic: The following questions are applicable to the 2017 onwards specification, but are taken from the old specification. However, Mechanics has not significantly changed so these will be similar.

## Kinematics - Constant Acceleration

## Motion in a Straight Line

- M1 June 2014 - Question 3
- M1 June 2013 - Question 4
- M1 June 2012 - Question 5
- M1 June 2011 - Question 1
- M1 June 2009 - Question 1
- M1 January 2009 - Question 2
- M1 June 2008-Question 2


## Velocity Time Graphs

- M1 June 2013- Question 5
- M1 January 2013 - Question 5
- M1 June 2012-Question 4
- M1 June 2011 - Question 4
- M1 January 2010 - Question 2
- M1 June 2008- Question 4


## Velocity Vectors

- M1 June 2013-Question 7
- M1 January 2013 - Question 6
- M1 June 2012 - Question 6
- M1 January 2012 - Question 7
- M1 June 2011 - Question 7
- M1 June 2010 - Question 1
- M1 January 2010 - Question 7
- M1 June 2009-Question 8
- M1 January 2009 - Question 1
- M1 June 2008-Question 3
- M1 January 2008 - Question 6


## Resolving Forces

- M1 June 2014 - Question 6


## Statics of a Particle

## Equilibrium

- M1 June 2014 - Question 1
- M1 January 2013 - Question 3
- M1 January 2010 - Question 3


## Friction

- M1 June 2013-Question 3
- M1 June 2012- Question 3
- M1 June 2011 - Question 3
- M1 June 2009 - Question 5
- M1 January 2009 - Question 5


## Equilibrium of a Rigid Body

## Moments

- M1 June 2014 - Question 4
- M1 June 2013-Question 6
- M1 January 2013 - Question 2
- M1 June 2012 - Question 2
- M1 January 2012 - Question 4
- M1 June 2011 - Question 5
- M1 January 2010 - Question 4
- M1 June 2009 - Question 7
- M1 January 2009 - Question 4
- M1 June 2008 - Question 6
- M1 January 2008 - Question 5
- M2 June 2013-Question 5
- M2 January 2013 - Question 3
- M2 January 2012 - Question 5
- M2 June 2011 - Question 7
- M2 January 2011 - Question 7
- M2 June 2010 - Question 6


## Dynamics

## Newton's Law of Motion ( $\mathbf{F}=\mathbf{m a}$ )

- M1 June 2014 - Question 2


## Lift Problems

- M1 June 2013-Question 2


## Connected Particles

- M1 June 2014 - Question 7
- M1 June 2013 - Question 8
- M1 January 2013 - Question 7
- M1 June 2011 - Question 6
- M1 June 2010 - Question 8
- M1 January 2010 - Question 6
- M1 January 2009-Question 7
- M1 January 2008 - Question 7


## Projectiles

## Projectiles

- M2 June 2013-Question 6
- M2 January 2013 - Question 6
- M2 January 2012 - Question 7
- M2 June 2011 - Question 8
- M2 January 2011 - Question 6
- M2 June 2010-Question 7


## Kinematics 2

## Motion with Variable Acceleration

- M2 June 2013 - Question 3
- M2 January 2012 - Question 2
- M2 June 2011 - Question 6
- M2 January 2011 - Question 3
- M2 June 2010 - Question 1

