Pakuranga College

Year 10

# Mathematics
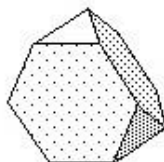
### The 13 Archimedean Solids

These all have 2 or more types of regular polygons (e.g. triangles & squares).
The truncated tetrahedron shows the "progression" from a tetrahedron to another tetrahedron, since the tetrahedron is a dual to itself, i.e., connecting the midpoints of the faces yields another tetrahedron pointing in the opposite direction from the original.
The row below shows the progression from a hexahedron (cube) to an octahedron.
The bottom row shows the progression from a dodecahedron to an icosahedron, as corners are trimmed off and turned into other regular polygons.
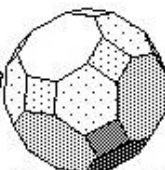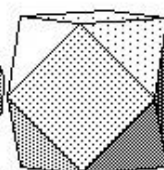
Truncated Tetrahedron
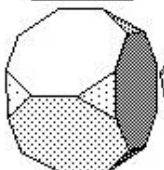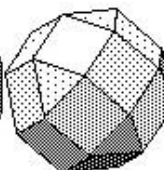
Truncated Cube

Rhombicub-octahedron
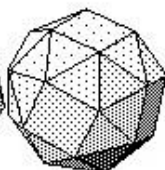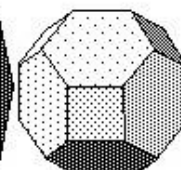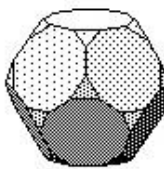
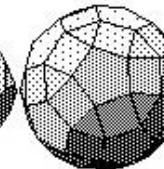Snub Cube

(Rhombi)truncated Cuboctahedron
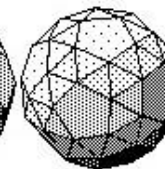
Cuboctahedron (Dymaxion)
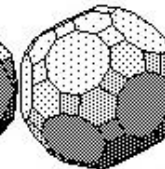
Truncated Octahedron (Mecon)
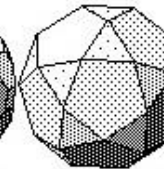
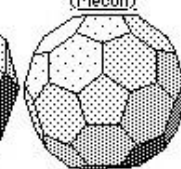Truncated Dodecahedron

Rhombicosi-dodecahedron

Snub Dodecahedron

(Rhombi)truncated Icosidodecahedron

Icosidodecahedron

Truncated Icosahedron

2015

Year 10 Mathematics - Weekly Planner 2016

Week	Date	Unit of Work				Assessment	Event
1	Feb 1 - Feb 5	Friday February 5th is first day of TT			Welcome/e-asTTle	e-asTTle pre-Algebra/stats	Auck Ann. Day – 1st
2	Feb 8 - Feb 12	Algebra	Stats/Prob	Stats/Prob			*Waitangi Day – 8th*
3	Feb 15 - Feb 19	Algebra	Stats/Prob	Stats/Prob	Puzzle/Prob Solve		
4	Feb 22 - Feb 26	Algebra	Stats/Prob	Stats/Prob	Puzzle/Prob Solve		*Y9 Camp 22nd – 26th*
5	Feb 29 - Mar 5	Algebra	Stats/Prob	Stats/Prob			*Group conference 3rd*
6	Mar 7 - Mar 11	Algebra	Stats/Prob	Stats/Prob			*School Athletics 8th*
7	Mar 14 - Mar 18	Algebra	Stats/Prob		Puzzle/Prob Solve		*Swim Sports 15th & 17th*
8	Mar 21 - Mar 25	Algebra	Stats/Prob	Stats/Prob			*Good Friday 25th*
9	Mar 28 - Apr 1	Algebra	Stats/Prob				*Easter 28th & 29th*
10	Apr 4 - Apr 8	Algebra	Stats/Prob	Stats/Prob	Puzzle/Prob Solve		
11	Apr 11 - Apr 15	Algebra	Stats/Prob	Stats/Prob	Puzzle/Prob Solve	e-asTTle Stats/Prob/Alg/pre-Geom	
1	May 2 - May 6	Algebra	Geometry	Geometry	Puzzle/Prob Solve		
2	May 9 - May 13	Algebra	Geometry	Geometry	Puzzle/Prob Solve		*School Production 11th -14th*
3	May 16 - May 20	Algebra	Geometry	Geometry	Puzzle/Prob Solve		
4	May 23 - May 27	Algebra	Geometry	Geometry	Puzzle/Prob Solve		
5	May 31 - Jun 3	Algebra	Geometry	Geometry			*TOD 3rd*
6	Jun 6 - Jun 10	Algebra	Geometry	Geometry			*Queen's B'day – 6th*
7	Jun 13 - Jun 17	Algebra	Geometry	Geometry	Puzzle/Prob Solve		
8	Jun 20 - Jun 24	Algebra	Geometry	Geometry	Puzzle/Prob Solve		
9	Jun 27 - Jul 1	Algebra	Geometry	Geometry	Puzzle/Prob Solve		*Verbal report eve 28th*
10	Jul 4 - Jul 8	Algebra	Geometry	Geometry	Puzzle/Prob Solve	e-asTTle Geom/Alg/pre-num-meas	*Verbal report eve 5th*
1	Jul 25 - Jul 29	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		*Culture Night 28th*
2	Aug 1 - Aug 5	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
3	Aug 8 - Aug 12	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
4	Aug 15 - Aug 19	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
5	Aug 22 - Aug 26	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
6	Aug 29 - Sep 2	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		*Prelim Exams all week Tournament week*
7	Sep 5 - Sep 9	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		*Prelim Exams Finish 6th*
8	Sep 12 - Sep 16	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
9	Sep 19 - Sep 23	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve	e-asTTle Number/Meas/Alg	*Arts Festival*
1	Oct 10 - Oct 14	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		
2	Oct 17 - Oct 21	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve		*Orientation 17th + 18th*
3	Oct 24 - Oct 28	Algebra	Number/Measuremen	Number/Measuremen			*Labour Day 24th*
4	Oct 31 - Nov 4	Algebra	Number/Measuremen	Number/Measuremen	Puzzle/Prob Solve	Number/Measurement internal Due	*Final days Year 11-13*
5	Nov 7 - Nov 11	Revision			Exam	Stats/Prob/Geom/Alg	*TOD 9th and 10th Junior Exams 11th*
6	Nov 14 - Nov 18	Algebra	Trigonometry	Trigonometry	Puzzle/Prob Solve		
7	Nov 21 - Nov 25	Algebra	Trigonometry	Trigonometry	Puzzle/Prob Solve		
8	Nov 28 - Dec 2	Algebra	Trigonometry	Trigonometry	Puzzle/Prob Solve		
9	Dec 5 - Dec 9	Trig test	Puzzle/Prob Solve	Puzzle/Prob Solve	Puzzle/Prob Solve	e-asTTle Trig	
10	Dec 12 - Dec 15						

Assessment Guide: 10MAT – Year 10 Mathematics 2016

	Date Due	Assessment	Credits	Grade	Int / Ext
1	**Term 4 Week 4**	**AS91026 Number Reasoning**	**4**		**Internal**
2	**Term 4 Week 4**	**AS91030 Measurement**	**3**		**Internal**

Pakuranga College Assessment Policy
Refer to NZQA Handbook for Students for more details and the appropriate forms.

- **Missed Internal assessments:**
  If you cannot meet a deadline for an internal assessment because of illness, family trauma or a school commitment, you must complete the missed assessment application form within three days of the assessment date. Please note that a medical form must be completed by a doctor if you are sick.

- **Appeals for Internal Assessments :**
  From the handing back of marked work, if you think your work has been incorrectly marked, talk to your teacher.
  If you are not happy with the teacher's explanation, you need to complete the appeal application form within three days of the work being handed back, and give this to the head of department.

- **Compassionate Consideration for External Exams :**
  If you are sick, break a limb or have family trauma and cannot sit your external examinations, you will need to apply for compassionate consideration. If your application is successful, the grade you get will be based on your results during the year.

Mathematics Faculty Assessment Details
Refer to NZQA Handbook for Students for more details and the appropriate forms.

- **All internal assessments in this course are run according to the external NCEA assessment conditions. Ensure you are familiar with these and the consequences for breaching these assessment conditions.**

- **Extensions for Internal Assessments :**
  The Mathematics faculty do not allow extensions for internal assessments

Homework
Homework will be given throughout the course. This will be mainly from the homework book, workbook, handouts and class work. Regular checks will be made to ensure that you are fulfilling expectations regarding homework. It is an essential part of the course.

<u>Statement of Expectations</u>

The mathematics and statistics faculty expects students to fully engage in all opportunities offered in class. This is reflected in teachers making their lessons engaging to the students of all ethnicities and learning styles. This section is a subject interpretation of the school policy and attempts to add depth to it but not act as a replacement.

Meet your full potential
- Students are expected to reach their potential in every lesson
- Students are expected to set and maintain goals that reflect their potential

Actions and attitudes
- Students are expected to attend every lesson with an appropriate attitude towards learning
- Students are expected to engage in actions that lead directly to good learning outcomes

Treat with respect
- Students are expected to treat each lesson and all parties concerned with respect
- Students are expected to respect the learning process and actively engage in this

High expectations
- Students are expected to maintain high expectations of performance in every lesson and assessment
- Students are expected to have high expectations of those around them during all lessons

Successful solutions
- Students are expected to seek successful solutions to classroom behavior dilemmas
- Students are expected to offer successful solutions to solving problems in assigned class tasks