

Bryn Mawr College

Scholarship, Research, and Creative Work at Bryn Mawr College

Matriculation Exams

Bryn Mawr College Publications, Special
Collections, Digitized Books

1898

Bryn Mawr College Examination Papers Set for Matriculation in the Spring, 1898

Bryn Mawr College

Follow this and additional works at: https://repository.brynmawr.edu/bmc_matriculationexams
[Let us know how access to this document benefits you.](#)

Citation

Bryn Mawr College Examination Papers Set for Matriculation in the Spring, 1898 (Bryn Mawr, PA: Bryn Mawr College, 1898).

This paper is posted at Scholarship, Research, and Creative Work at Bryn Mawr College.
https://repository.brynmawr.edu/bmc_matriculationexams/1

For more information, please contact repository@brynmawr.edu.

BRYN MAWR COLLEGE.

EXAMINATION PAPERS
SET FOR MATRICULATION

IN THE

SPRING, 1898.

*This pamphlet may be obtained at the Secretary's Office, Bryn Mawr College,
on payment of twenty-five cents.*

BRYN MAWR COLLEGE.

EXAMINATIONS FOR MATRICULATION.

Examinations for matriculation in Bryn Mawr College are held at the college during the week preceding the opening of each academic year, and also during the last week of each academic year. In the spring examinations may also be arranged for in other places. In 1899 examinations for matriculation will be held from June 2nd to June 7th, inclusive, at Bryn Mawr College, and also in Boston, New York, Philadelphia, Baltimore, Chicago, in Portland, Oregon, College Park, California, and in London or Paris. Examinations for matriculation will also be held during the last week of the first semester of each year, but only at Bryn Mawr College, and for those candidates only that intend to enter the college at the half-year.

Requests for examinations elsewhere than at Bryn Mawr Col-

AUTUMN, 1899.

SEPTEMBER 25.

<i>English Grammar, etc.</i> ,	9½—11
<i>English Composition</i> ,	11—1
<i>Geometry</i> ,	2½—5

26.

<i>Algebra</i> ,	9—12
<i>French</i> ,	2—5

27.

<i>Latin Prose Authors</i> ,	9—10¾
<i>Latin Poets</i> ,	11¼—1
<i>Science</i> ,	3—5

28.

<i>Latin Composition</i> ,	9—10½
<i>History</i> ,	11—1
<i>German</i> ,	2½—5½

29.

<i>Greek</i> ,	9—12
<i>Minor Latin, Section A</i> ,	9—12
<i>Solid Geometry</i> and <i>Trigonometry</i> ,	2—5
<i>Minor Latin, Section B</i> ,	2—5

MID-YEAR, 1899.*

FEBRUARY 6.

<i>English Grammar, etc.</i> ,	9½—11
<i>English Composition</i> ,	11—1
<i>Geometry</i> ,	2½—5

7.

<i>Algebra</i> ,	9—12
<i>French</i> ,	2—5

8.

<i>Latin Prose Authors</i> ,	9—10¾
<i>Latin Poets</i> ,	11¼—1
<i>Science</i> ,	3—5

9.

<i>Latin Composition</i> ,	9—10½
<i>History</i> ,	11—1
<i>German</i> ,	2½—5½

10.

<i>Greek</i> ,	9—12
<i>Solid Geometry</i> and <i>Trigonometry</i> ,	2—5

time, although the three sections may be taken separately, and in any order the candidate may prefer.

III. History.—(1) The outlines of the History of Greece and Rome ; or the outlines of the History of England and the United States.

Oman's *History of Greece* (second edition) ; Allen's *History of the Roman People* ; Gardiner's *A Student's History of England* ; Johnston's *History of the United States* and *The United States : its History and Constitution*, are recommended. It is also recommended, though in no sense required, that candidates become familiar, by means of carefully selected collateral references, with other books somewhat different in character from those mentioned above : such as, for Grecian History, Holm's *History of Greece*, vol. i., and *Epochs of Ancient History*, edited by Cox and Sankey, published by Scribner ; for Roman History, Schuckburgh's *History of Rome*, Headlam's *Outlines of Roman History* and the *Epochs of Ancient History*, already mentioned ; for English History, *English History from Contemporary Sources*, edited by Hutton and Powell, published by Putnam, and *Epochs of English History*, edited by Creighton, published by Longman ; for American History, *Epochs of American History*, edited by Hart, published by Longman.

English.—(1) The candidate is required to write a short English composition, correct in spelling, grammar, punctuation, and general arrangement, and to correct specimens of bad English.

In 1898 candidates must be familiar with Chaucer's *Knight's Tale* ; Shakespeare's *Macbeth* and *Midsummer Night's Dream* ; Milton's *L'Allegro*, *Il Penseroso*, *Lycidas*, and *Paradise Lost*, Books I. and II. ; the *Sir Roger de Coverley Papers* in the *Spectator* ; Matthew Arnold's *Essay on Gray* and *Essay on A Guide to English Literature* ; Wordsworth's *Michael* and *Resolution and Independence* ; Coleridge's *Ancient Mariner* and *Christabel* ; Shelley's *Adonais* and *Sensitive Plant* ; Keats's *Eve of St. Agnes* ; Hawthorne's *House of the Seven Gables* ; Pater's *Child in the House* ; and Stevenson's *Master of Ballantrae*.

In 1899 candidates must be familiar with Chaucer's *Knight's Tale* ; Shakespeare's *Macbeth* and *As You Like It* ; Milton's *L'Allegro*, *Il Penseroso*, *Lycidas*, and *Paradise Lost*, Books I. and II. ; the *Sir Roger de Coverley Papers* in the *Spectator* ; Matthew Arnold's *Essay on Gray* and *Essay on A Guide to English Literature* ; Wordsworth's *Michael* and *Resolution and Independence* ; Coleridge's *Ancient Mariner* and *Christabel* ; Shelley's *Adonais* and *Sensitive Plant* ; Keats's *Eve of St. Agnes* ; Tennyson's *Passing of Arthur* ; Hawthorne's *House of the Seven Gables* ; Pater's *Child in the House* ; Stevenson's *Kidnapped*.

In 1900 candidates must be familiar with Chaucer's *Knight's Tale* ; Shakespeare's *Macbeth* and *As You Like It* ; Milton's *L'Allegro*, *Il Penseroso*, *Lycidas*, and *Paradise Lost*, Books I. and II. ; the *Sir Roger de Coverly Papers* in the *Spectator* ; Matthew Arnold's *Essay on Gray* and *Essay on A Guide to English Literature* ; Wordsworth's *Michael* and *Resolution and Independence* ; Coleridge's *Ancient Mariner* and *Christabel* ; Shelley's *Adonais* and *Sensitive Plant* ; Keats's *Eve of St. Agnes* ; Tennyson's *Passing of Arthur* ; Hawthorne's *House of the Seven Gables* ; Pater's *Child in the House* ; Stevenson's *Kidnapped*.

The books agreed on for the years 1898, 1899, and 1900 by the Associations of the Colleges and Schools of the New England States, the Middle States and Maryland, the North Central States, and the Southern States, will be accepted as equivalents in corresponding years. The books prescribed for candidates taking the regular examinations for matriculation in any given year are required also of candidates taking the special matriculation examination provided for students entering the college in the February of the year following. Candidates passing off conditions after admission to the college may offer the books prescribed in the examination in which the condition was imposed.

In preparing for this examination especial attention should be given to paragraph-structure and to sentence-structure. Hill's *Foundations of Rhetoric*, Abbott's *How to Write Clearly*, and Bigelow's *Handbook of Punctuation*, are recommended.

Science.—(1) The elements of one of the following sciences :—Physics or Chemistry, or Botany, or Physiology, or Physical Geography.

Carhart and Chute' or Gage's *Elements of Physics*, Remsen's *Introduction to the Study of Chemistry* (Briefer Course), Bessey's *Essentials of Botany*, Martin's *Human Body* (Briefer Course) or Foster's *Physiology for Beginners*, and Russell Hinman's *Physical Geography* are recommended. Candidates are advised, whenever possible, to offer Physics, as this study forms a better basis for further scientific work. It is recommended, though in no sense required, that candidates should have some knowledge of the metric system.

IV. Two of the following languages :

Greek.—(1) Grammar and composition. (2) Translation at sight of simple passages in Attic Prose, such as Xenophon's *Anabasis* or *Memorabilia*. (3) Translation at sight of passages of average difficulty from Homer. Due allowance is made for unusual words and there are questions testing the candidate's practical knowledge of grammar, including prosody.

White's *Beginners' Greek Book* and Jones' *Exercises in Greek Prose*, or equivalents, are recommended.

French.—(1) The examination in French has three divisions, one to test the candidate's knowledge of pronunciation and ordinary grammatical forms, the other two, her power to read at sight ordinary French prose and verse.

For the examination in reading no texts are assigned, the examination being intended to test the candidate's ability to read any ordinary French whatsoever. Candidates preparing for these examinations are advised to acquire as large a vocabulary as possible. They are further advised in their study of verbs to concentrate their attention on the regular verbs, the auxiliaries *être*, *avoir*, such important irregular verbs as *aller*, *devoir*, *dire*, *faire*, *mettre*, *prendre*, *pouvoir*, *vouloir*, *tenir*, *venir*, *voir*, *écrire*, *lire*, *croire*, *boire*, and the typical verbs, *conduire*, *craindre*, *paraître*, *partir*, and to acquire a fair knowledge of the use of the various past tenses and of the rules of the subjunctive.

The examination in French may not be divided ; failure to pass in French translation involves failure also in French Grammar, although the reverse is not true.

Teachers preparing students that wish to elect French in the college are advised to train their pupils to write French from dictation in order to enable them to understand lectures delivered in that language.

German.—(1) The examination in German is precisely similar to that in French, and will test the candidate's pronunciation, knowledge of ordinary grammatical forms, and ability to read ordinary German at sight.

The examination in German may not be divided ; failure to pass in German translation involves failure also in German grammar, although the reverse is not true.

The candidate may omit one of the three languages, Greek, French, or German, selecting for examination Greek and French, or Greek and German, or French and German.

With the exception of the Minor Course in Latin, all subjects potentially included in the examination for admission are regarded by the college as preparatory and non-collegiate. The college course of instruction in mathematics, for example, does not include but presupposes trigonometry ; the courses in French and German presuppose a reading knowledge of these languages.

It is therefore to the interest of every candidate to offer, at entrance, advanced mathematics, and if possible all four languages, since to fail in such of these examinations as are not strictly obligatory will not affect the candidate's collegiate standing, and to pass them successfully will leave her nearly free for elective study under the Group System and for true collegiate work.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

ALGEBRA. (*Counted as two sections.*)

SPRING, 1898.—THREE HOURS.

1. What are the values of $(a + b)^4$, $(a + b + c)^2$?
Deduce the values of $(a - b)^4$, $(a - b - c)^2$.

2. Solve the equations

(i.) $\sqrt{3 - x} = \sqrt{3} + \sqrt{x}$;

(ii.) $\frac{x^3 - y^3}{x - y} = 19$; $\frac{1}{3}xy = 2$.

3. Find the highest common factor of
 $12x(x - 2)(x^2 - 7x + 6)$, $15x^2(x^2 - 4)(x^3 - 5x^2 + 5x - 1)$.

4. Multiply

$$a^{\frac{3}{4}} + a^{\frac{1}{2}}b^{\frac{1}{4}} + a^{\frac{1}{4}}b^{\frac{1}{2}} + b^{\frac{3}{4}} \text{ by } a^{\frac{1}{4}} - b^{\frac{1}{4}}.$$

Divide

$$a^6 + 2a^3b^3 + b^6 \text{ by } a^2 + 2ab + b^2.$$

5. If α, β be the roots of the equation

$$x^2 + px + q = 0,$$

show that

$$\frac{\alpha}{\beta} + \frac{\beta}{\alpha} = \frac{p^2 - 2q}{q}.$$

Prove that a quadratic equation cannot have more than two roots.

6. Explain what is meant by variation, inverse ratio, duplicate ratio, proportion. Illustrate your answers by examples.

7. A certain sum of money was invested at 4 per cent. compound interest; at the end of two years the amount was \$378.56. What was the sum?

8. Show how to find the n^{th} term of (i.) an arithmetic, (ii.) a geometric progression.

If $p + r = 2q$, show that a^p, a^q, a^r are in geometric progression.

9. If $x^2 + ax + b$ be a factor of $x^3 + cx + d$, then c, d must be equal to $b - a^2, -ab$ respectively, and $a^3 + ca + d$ must vanish.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

PLANE GEOMETRY. (*Counted as one section.*)

SPRING, 1898.—TWO AND A HALF HOURS.

1. Define a triangle. Give and prove any relation of *inequality* connecting the lengths of the sides.

Prove that if the side B C of a triangle A B C is produced to D so that $C D = A B$, then will A D be greater than B C.

2. Prove that the opposite sides and angles of a parallelogram are equal, and that the diagonal bisects the parallelogram.

A parallelogram is constructed, having its sides equal and parallel to the diagonals of a given parallelogram; show that its diagonals are parallel to the sides of the given parallelogram.

Show how to construct a parallelogram, given the lengths of one side and the two diagonals.

3. Prove that the line drawn from the centre of a circle perpendicular to a chord of the circle bisects the chord.

Show how to place in a given circle a chord that shall be bisected at a given point.

4. Prove that if through a point within a circle two chords are drawn, the product of the two segments of one is equal to the product of the two segments of the other.

Two chords of a circle are divided in the same ratio at their point of intersection; show that the chords are equal.

5. Give and prove an expression for the area of a triangle.

The sides AB , AC of a triangle ABC are bisected in D , E , respectively; prove that the area of the triangle DBC is twice that of the triangle DEB .

6. Prove that if two circles touch, the straight line joining their centres will pass through the point of contact.

Two circles touch externally. How many common tangents have they? Give and prove a construction for the common tangents.

7. Prove that the tangents at the extremities of any chord of a circle are equally inclined to the chord.

Two unequal circles touch externally at P ; the line AB touches the circles at A and B . Prove that the angle APB is a right angle.

8. State the geometrical equivalent of the algebraic relations

$$(a + b)^2 = a^2 + b^2 + 2ab,$$

$$(a - b)^2 = a^2 + b^2 - 2ab.$$

Prove these geometrical relations.

If two chords of a circle intersect at right angles, prove that the sum of the squares of the four segments is equal to the square on the diameter of the circle.

9. Show how to describe a regular hexagon in a given circle. What other regular polygons of not more than 20 sides can be described with the help of the regular hexagon?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

LATIN. (*Counted as three sections.*)

FIRST SECTION: PROSE COMPOSITION.

SPRING, 1898.—ONE AND A HALF HOURS.

I. Tell me why you are ashamed of your work;—or are you only tired of it? I went to my uncle's in Utica, but I did not enjoy his beautiful pictures, for I was not skilled enough in art. The general left the city with his troops and hastened to the frontier to attack the enemy. I can not tell you how happy I am at your great victory. The girl married a man who was fifteen years older than herself. When asked why, she replied: it is better to be an old man's darling (*deliciæ*) than a young man's slave. Do you think you could trust a woman who says such things as that?

II. Hannibal being conquered by Scipio, fled to Antiochus, King of Syria. Ambassadors were sent from Rome to Antiochus, among whom was Scipio, who asked Hannibal whom he thought to be the greatest general. Hannibal replied, that Alexander, King of Macedon seemed to him to have been the greatest, because with small forces he had routed innumerable armies. Then Scipio asked whom he placed second. 'Pyrrhus,' said he, 'because he first taught how to measure out a camp.' Again when Scipio asked whom he placed third, he replied 'Myself.' Then Scipio, smiling, said, "What then would you say if you had conquered me?" 'I should have placed myself before Alexander and Pyrrhus and all others.'

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

LATIN. (*Counted as three sections.*)

SECOND SECTION: PROSE AUTHORS.

SPRING, 1898.—ONE AND THREE-QUARTER HOURS.

I. Translate Nepos XXV. 10. (Atticus, although one of Cicero's friends, is not harmed by Antonius, on his return to Italy.)

Conversa subito fortuna est. Ut Antonius rediit in Italiam, nemo non magno in periculo Atticum putarat propter intimam familiaritatem Ciceronis et Bruti itaque ad adventum imperatorum de foro decesserat, timens proscriptionem, latebatque apud P. Volumnium, cui, ut ostendimus, paulo ante opem tulerat (tanta varietas iis temporibus fuit fortunae, ut modo hi, modo illi in summo essent aut fastigio aut periculo), habebatque secum Q. Gellium Canum, aequalem simillimumque sui. Hoc quoque Attici bonitatis exemplum quod cum eo, quem puerum in ludo cognorat, adeo conjuncte vixit, ut ad extremam aetatem amicitia eorum creverit. Antonius autem, etsi tanto odio ferebatur in Ciceronem, ut non solum ei, sed etiam omnibus eius amicis esset inimicus eosque vellet proscribere multis hortantibus, tamen Attici memor fuit officii et ei, cum requisisset, ubinam esset, sua manu scripsit, ne timeret statimque ad se veniret: se eum et eius causa Canum de proscriptorum numero exemisse. Ac ne quod periculum incideret, quod noctu fiebat, praesidium ei misit. Sic Atticus in summo timore non solum sibi, sed etiam ei, quem carissimum habebat, praesidio fuit, ut appareret nullam

seiunctam sibi ab eo velle fortunam. Quodsi gubernator praecipua laude effertur, qui navem ex hieme marique scopuloso servat, cur non singularis eius existimetur prudentia, qui ex tot tamque gravibus procellis civilibus ad incolumitatem pervenit?

II. Translate either A or B.

A. Translate Val. Max. VII. 4, 5. (Metellus confuses the Spaniards by random marches and thus captures Centrebia).

Q. Metellus cum pro consule bellum in Hispania adversus Celtiberos gereret urbemque Contrebiam caput eius gentis viribus expugnare non posset, intra pectus suum multum ac diu consiliis agitatis viam repperit, qua propositum ad exitum perduceret. Itinera magno impetu ingrediebatur, deinde alias atque alias regiones petebat: hos obsidebat montes, paulo post ad illos transgrediebatur, cum interim tam suis omnibus quam ipsis hostibus ignota erat causa, inopinatae eius ac subitae fluctuationis. Interrogatus quoque a quodam amicissimo sibi quid ita sparsum et incertum militae genus sequeretur, 'absiste' inquit 'istud quaerere: nam si huius consilii mei interiorem tunicam consciam esse sensero, continuo eam cremari iubebo.' Quorsum igitur ista dissimulatio erupit aut quem finem habuit? Postquam vero et exercitum suum ignorantia et totam Celtiberiam errore implicavit, cum alio cursum direxisset, subito ad Contrebiam reflexit eamque inopinatam et attonitam oppressit. Ergo nisi mentem suam dolos scrutari coegisset, ad ultimam ei senectutem apud moenia Contrebiae armato sedendum foret.

B. Translate Cicero. *Phil.* II. 12, 28. (Cicero replies to Antonius' charge that Brutus had called Cicero's name at the assassination of Cæsar).

Caesare interfecto, inquit, statim cruentum alte extollens Brutus pugionem Ciceronem nominatim exclamavit atque

ei recuperatam libertatem est gratulatus. Cur mihi potissimum? quia sciebam? Vide ne illa causa fuerit appellandi mei, quod, cum rem gessisset consimilem rebus iis, quas ipse gesseram, me potissimum testatus est se aemulum mearum laudium exstitisse. Tu autem, omnium stultissime, non intelligis, si, id quod me arguis, voluisse interfici Caesarem crimen sit, etiam laetatum esse morte Caesaris crimen esse? Quid enim interest inter suasorem facti et probatorem? aut quid refert utrum voluerim fieri an gaudeam factum? Ecquis est igitur exceptis iis, qui illum regnare gaudebant, qui illud aut fieri noluerit aut factum improbarit? Omnes ergo in culpa. Etenim omnes boni, quantum in ipsis fuit, Caesarem occiderunt. Aliis consilium, aliis animus, aliis occasio defuit: voluntas nemini. Sed stuporem hominis vel dicam pecudis attendite. Sic enim dixit: *M. Brutus quem ego honoris causa nomino, cruentum pugionem tenens Ciceronem exclamavit: ex quo intelligi debet eum conscium fuisse.*

2. Explain the syntax of the words in italics.

3. Scan vv. 697-700.

C.

1. Translate Virgil, Geor. IV., 415-440.

(Cyrene leads her son Aristaeus to the cave of Proteus, keeper of Neptune's sea-calves.)

Haec ait, et liquidum ambrosiae *defundit* odorem, 415

Quo totum nati corpus perduxit; at *illi*

Dulcis compositis spiravit *crinibus* aura,

Atque habilis membris venit vigor. Est specus ingens

Exesi latere in montis, *quo* plurima *vento*

Cogitur inque sinus scindit sese unda reductos, 420

Deprensus olim statio tutissima nautis;

Intus se vasti Proteus tegit obice saxi.

Ilic iuvenem in latebris aversum a lumine Nympha

Collocat; ipsa procul nebulis obscura resistit.

Iam rapidus torrens sitientis Sirius Indos 425

Ardebat caelo, et medium sol igneus orbem

Hauserat; arebant herbae, et cava flumina siccis

Faucibus ad limum radii tepefacta coquebant:

Cum Proteus consueta petens e fluctibus antra

Ibat; eum vasti circum gens humida ponti 430

Exsultans rorem late dispersit amarum.

Sternunt se *somno* diversae in litore phocae;

Ipse, velut stabuli custos in montibus olim,

Vesper ubi e pastu vitulos ad tecta reducit

Auditisque lupos acuunt *balatibus* agni, 435

Considit scopulo medius, numerumque recenset.

Cuius Aristaeo quoniam est oblata facultas,

Vix defessa senem passus componere membra,

Cum clamore ruit magno, mancisque iacentem

Occupat.

2. Explain the syntax of the words in italics.

3. Scan vv. 415-18.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

HISTORY. (*Counted as one section.*)

SPRING, 1898.—TWO HOURS.

GREEK HISTORY.

1. To what form of government was the name Tyranny applied? Show why a Tyranny was but a stage in the political development of Greece and illustrate by the Tyranny of Corinth.

2. Discuss the character of Themistocles. What was his work for Athens at the time of the Persian wars? Why was he finally banished?

3. When and under what circumstances was the Delian league organized? What cities and islands were members of it, and what form did the organization take? When was the league dissolved?

4. Give a brief account of the Sicilian expedition in 413 B. C. Why did it fail and why was its failure disastrous to Athens?

5. Who were the Macedonians? Discuss the character of Philip and show how he obtained an influence in the affairs of Greece.

ROMAN HISTORY.

1. Give an account of the Roman organization during the period of the kings. Of whom was the *comitia curiata* composed and what did it do?

2.- Trace the growth of the territory of Rome from the close of the war with Pyrrhus to the close of the third Punic war. How was this territory organized?

3. What were the evils that had come upon Rome in the time of the Gracchi? Explain the matter of the public lands and give an account of the work of Tiberius Gracchus. Why did he fail?

4. Give a brief outline of the career of Sulla. Examine his legislative measures with especial reference to the senate and tribunes.

5. Discuss the character and reign of Marcus Aurelius.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

HISTORY. (*Counted as one section.*)

SPRING, 1898.—TWO HOURS.

ENGLISH HISTORY.

1. Give an account of the Norman conquest, showing that it was not completed at the battle of Hastings. In what ways was the Norman conquest of benefit to England.

2. Say what you can of the rise of Parliament in the thirteenth century. How did the Parliament of Edward I. differ from that of Simon de Montfort? Was there a "House of Commons" at this time?

3. What form did the reformation take in England under Edward VI.? Who was Archbishop Cranmer and what did he do? Explain in what ways the reign of Queen Mary differed from that of Edward VI.

4. What was the Petition of Right and why is it considered an important document? Give the circumstances under which it was drawn up.

5. What was the character of George III.? Explain England's policy toward the American colonies after 1761. What was her object in imposing taxes on her colonies?

AMERICAN HISTORY.

1. Give an account of the settlement of Plymouth. By whom was the colony founded? What kind of government was established and how long did the colony remain independent?

2. What were the causes of the French and Indian war? What territories in America were occupied by the French at this time? When did the war end and what were its results?

3. What important questions came up during Washington's second administration? In this connection explain the difference between Federalists and Anti-Federalists.

4. What was the Abolition movement? Who were its leaders, and how was it conducted? Explain the "Right of Petition" to Congress.

5. Explain the Kansas Nebraska act of 1853. Why was it considered contrary to the Missouri Compromise? What do you mean by "the struggle for Kansas"?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

ENGLISH. (*Counted as one section.*)

I. GRAMMAR AND PUNCTUATION.

SPRING, 1898.—ONE AND A HALF HOURS.

Correct the following sentences, making the corrections as far as possible on the printed text:

1. Ruskin was the first critic to recognise the beauty and vigour in Turner's work, that places it far above the artists of his time.

2. At the age of eighteen, by an intensity of application which few persons are capable of conceiving of, all the popular English authors had not only been read by him, but he had also taken an extensive survey of foreign literature.

3. A great and venerated character, such as Washington, which an entire population respects and loves, however divided on other questions, is not an isolated fact to be regarded with barren admiration in history. . . . Washington in the flesh is taken from us; we will never behold him like our fathers did; but his memory remains, and I say, let us cling to his memory.

4. I am very sorry for this young man and would like to help him if possible, and if you have any work which he could do I would be very glad if you would send me word, and will let him know at once.

5. I could not help but think, as I stood watching the emigrant steamer, how soon the glowing hopes of the poor men who were leaving their all would be shattered, and that the grief of those who they left behind was preferable to the disillusionment awaiting them.

6. I would never dare to deny Chaucer's claim to pre-eminence among poets, but to my mind neither his portrayal of nature or his delineation of character have that power and vigour that fills every page of some modern writers.

7. This unfortunate choice of metre has done as much, if not more, to spoil Morris's work than anything else, and because of it we do not always notice the charming qualities it possesses.

8. Idleness, like procrastination, is a habit easy to contract, and they are equally as hard to get rid of, as every one will grant if they have ever tried to free themselves from them.

9. It was one of those days which needs a poet to describe it, and to be kept in memory as a red-letter day.

10. In speaking of Charlotte Brontë's appearance her first publisher says, "Small, delicate, pale, shrinking, I will never forget my first feeling of astonishment and pity, and only later came an understanding of her real strength of character."

11. I would hardly be able to make you feel my delight in this place, even if I was to write pages of description, so great was the impression made by the first sight of snow mountains on me.

12. In Newman's essay on "The Idea of a University" he argued that if it was once granted that a University was a place for the study of all sciences it would only be necessary to prove that theology was a science in order to demonstrate that it should be included in University studies.

Punctuate (on the printed text) the following passages:

1. Arnolds method of putting his author before the reader by means of carefully selected quotations is admirably illustrated in the following passage from the essay on

Emerson Yes truly his insight is admirable his truth is precious Yet the secret of his effect is not even in these it is in his temper It is in the hopeful serene beautiful temper wherewith these in Emerson are indissolubly joined in which they work and have their being He says himself We judge of a mans wisdom by his hope knowing that the perception of the inexhaustibleness of nature is an immortal youth If this be so how wise is Emerson for never had man such a sense of the inexhaustibleness of nature and such hope His abiding word for us the word by which being dead he yet speaks to us is this That which befits us embosomed in beauty and wonder as we are is cheerfulness and courage and the endeavour to realise our aspirations Shall not the heart which has received so much trust the Power by which it lives

2. I shall beg your permission to consider their conduct in two lights first the political and then the commercial Their political conduct I divide again into two parts the one external in which I mean to comprehend their conduct in their federal capacity as it relates to powers and states independent the other internal namely their conduct to the countries either immediately subject to the Company or to those who under the apparent government of native sovereigns are in a state much lower and much more miserable than common subjection

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

ENGLISH. (*Counted as one section.*)

II. COMPOSITION.

SPRING, 1898.—TWO HOURS.

(a) Give a short account in chronological order of the chief periods in the history of English literature and the chief authors in each period, in so far as such an account may be collected from the books prescribed for this examination.

(b) Give a brief account of Burke's character and temper as a statesman, and of the considerations that in political matters most weighed with him, in so far as such an account may be collected from the *Speech on Conciliation with America*.

Take either (a) or (b).

The composition must contain not less than sixty lines of foolscap, and must be correct in spelling, grammar, punctuation, paragraphing, and general arrangement.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

SCIENCE. (*Counted as one section.*)

SPRING, 1898.—TWO HOURS.

BOTANY.

1. Describe or give labelled figure of the structure of a root.
2. What is a root-hair? What is its function?
3. Name the parts of the edible mushroom. To what class of plants does it belong?
4. What is the use of carbon dioxide to the plant?
5. What is the meaning of the terms "symmetrical" and "complete" as applied to flowers? What is meant by "coalescence"? By "adnation"?
6. Describe the structure (preferably by labelled figures) of any two seeds that you have examined.
7. By what means are plants able to maintain an erect position?
8. Describe (preferably by labelled diagram) the structure of the fibro-vascular bundle of Indian corn.
9. What is the function of cork?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

SCIENCE. (*Counted as one section.*)

SPRING, 1898.—Two Hours.

PHYSIOLOGY.

(Note where this examination is taken. Mark *each* sheet with your name or initials).

1. Define "tissues" and "organs," and indicate their relations.
2. Name some of the more important chemical elements found in the body. Mention some that are not ordinarily found there.
3. What is the general structure of a joint. Where are such things found and how are they useful?
4. What do you understand "voluntary" and "involuntary" muscles to mean?
5. Describe the blood and tell how it is useful to the body. Do *not* describe the heart or the circulation!
6. Structure, relations, and function of the kidneys.
7. What are the "special senses"? Name the structures with which each is associated but do *not* describe the structures further.
8. What digestive processes take place in the small intestine?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

SCIENCE. (*Counted as one section.*)

SPRING, 1898.—TWO HOURS.

PHYSICAL GEOGRAPHY.

1. What is the form of the earth? How is it known? How measured? How has it been explained?
2. What are the three outer envelopes of the earth? Their composition and movements?
3. What are the causes of the annual variation in temperature? Explain in full.
4. Under what conditions and in what forms does the moisture of the atmosphere condense.
5. What are the indications upon which weather predictions are based. Illustrate.
6. Discuss the work of superficial water on the crust of the earth.
7. Discuss the work of underground water and its reappearance at the surface.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

SCIENCE. (*Counted as one section.*)

SPRING, 1898.—TWO HOURS.

PHYSICS.

1. What is meant by the elasticity of matter? Illustrate the laws which it obeys by describing the behavior of a bent steel spring. Explain the terms stress, strain, and limits of elasticity.

2. Show the bearing and importance of the fact that the acceleration of a falling body is independent of its mass. Why does this acceleration vary for different points on the earth's surface? What is Newton's law of gravitation?

3. Explain how shadows are formed; hence explain how the sun can be eclipsed. Describe an instrument to measure the intensity of light.

4. Give a precise account of what is going on in a vibrating air column (e.g., an organ pipe).

5. Describe a set of simple experiments which will bring out the main characteristics of the behavior of magnetic bodies.

6. What is Ohm's law? Explain what is meant by electromotive force and resistance.

7. What is meant by "temperature"? Explain what takes place in the operation called "boiling."

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

SCIENCE. (*Counted as one section.*)

SPRING, 1898.—Two Hours.

CHEMISTRY.

1. Give several methods of obtaining oxygen. What are its characteristic physical and chemical properties?
2. Where is oxygen found in nature? Discuss some familiar chemical changes in which it takes part.
3. Define a chemical element, a compound, and a mixture. Give examples of each class of bodies.
4. What is the composition of water by volume and by weight, and how can it be determined?
5. Mention several ways of making carbon dioxide. What are its chief properties, and what rôle does it play in nature?
6. Complete the following equations:
$$\text{H}_2\text{SO}_4 + \text{NaCl} =$$
$$\text{HCl} + \text{Na}_2\text{CO}_3 =$$
$$\text{Cu} + \text{H}_2\text{SO}_4 = \text{SO}_2 + \text{H}_2\text{O} +$$
$$\text{NH}_3 + \text{HNO}_3 =$$
7. What are the laws of definite and multiple proportions?
8. How are these laws explained?
9. How is chlorine obtained and what are its chief properties?
10. What is formed when chlorine acts upon hydrogen compounds?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

GREEK. (*Counted as three sections.*)

FIRST SECTION: GRAMMAR AND COMPOSITION.

SPRING, 1898.

(*One hour if all three sections are taken; one and a half hours if only one or two sections are taken at one time.*)

I. In the first prose passage, give the principal parts of all the verbs in the first six lines. Decline, in all genders, ἐλθόντων, παμπληθεῖ. Conjugate the indicative active of ἀφανιούτων. Give the direct discourse of κατακάνοιεν . . . καταθύσειν.

II. Translate into Greek:

When the general of all the forces of the Athenians learned that the king commanded the enemy's centre in person, he ordered Pericles to lead against him; but he did not obey, because he feared that if he should withdraw his force from the river, the enemy might completely surround it. Accordingly, Pericles sent word that he would wait, hoping that the Persians would depart at daybreak.

III. Scan lines 5-7 in the second passage from Homer. Give the Attic for the epic forms in the last six lines of the first passage.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

GREEK. (*Counted as three sections.*)

SECOND SECTION: PROSE AUTHORS.

SPRING, 1898.

(*One hour if all three sections are taken; one and a half hours if only one or two sections are taken at one time.*)

I. Translate:

ἔπειτα δὲ ἀναμνήσω γὰρ ὑμᾶς καὶ τοὺς τῶν προγόνων τῶν ἡμετέρων κινδύνους, ἵνα εἰδῆτε ὡς ἀγαθοῖς τε ὑμῖν προσήκει εἶναι σώζονται τε σὺν τοῖς θεοῖς καὶ ἐκ πάνυ δεινῶν οἱ ἀγαθοί. ἐλθόντων μὲν γὰρ Περσῶν καὶ τῶν σὺν αὐτοῖς παμπληθεῖ στόλῳ ὡς ἀφανιούτων τὰς Ἀθήνας, ὑποστῆναι αὐτοῖς Ἀθηναῖοι τολμήσαντες ἐνίκησαν αὐτούς. καὶ εὐξάμενοι τῇ Ἀρτέμιδι ὑπόσους κατακάνοιεν τῶν πολεμίων τοσαύτας χιμαίρας καταθύσειν τῇ θεῷ, ἐπεὶ οὐκ εἶχον ἱκανὰς εὐρεῖν, ἔδοξεν αὐτοῖς κατ' ἐνιαυτὸν πεντακοσίας θύειν, καὶ ἔτι νῦν ἀποθύουσιν. ἔπειτα ὅτε Ξέρξης ὕστερον ἀγείρας τὴν ἀναρίθμητον στρατιάν ἤλθεν ἐπὶ τὴν Ἑλλάδα, καὶ τότε ἐνίκων οἱ ἡμέτεροι πρόγονοι τοὺς τούτων προγόνους καὶ κατὰ γῆν καὶ κατὰ θάλατταν. ὧν ἔστι μὲν τεκμήρια ὄραν τὰ τρόπαια, μέγιστον δὲ μνημεῖον ἡ ἐλευθερία τῶν πόλεων ἐν αἷς ὑμεῖς ἐγένεσθε καὶ ἐτράφητε· οὐδένα γὰρ ἀνθρωπον δεσπότην ἀλλὰ τοὺς θεοὺς προσκυνεῖτε. τοιούτων μὲν ἐστε πρόγονων. οὐ μὲν δὴ τοῦτό γε ἐρῶ ὡς ὑμεῖς καταισχύνετε αὐτούς· ἀλλ' οὐπω πολλὰ ἡμέραι ἀφ' οὗ ἀντιταξάμενοι τούτοις τοῖς ἐκείνων ἐχθροῖς πολλαπλασίους ὑμῶν ἐνικᾶτε σὺν τοῖς θεοῖς.

II. Translate:

Ὁ δ' Ἀγησίλαος σπεύδων μὲν ἐκ τῆς Ἀσίας ἐβοήθει· ὄντι δ' αὐτῷ ἐν Ἀμφιπόλει ἀγγέλλει Δερχυλίδας ὅτι νικῶν τε αὖ Λακεδαιμόνιοι, καὶ αὐτῶν μὲν τεθνάναι ὀκτώ, τῶν δὲ πολεμίων παμπληθεῖς. ἐδήλου δὲ ὅτι καὶ τῶν συμμάχων οὐκ ολίγοι πεπτωχότες εἶεν. ἐρο-

μένου δέ τοῦ Ἀγησιλάου, Ἄρ' ἂν, ὦ Δερκυλίδα, ἐν καιρῷ γένοιτο, εἰ αἱ συμπέμπουσαι πόλεις ἡμῖν τοὺς στρατιώτας τὴν νίκην ὡς τάχιστα πύθοιντο; ἀπεκρίνατο δὴ ὁ Δερκυλίδας, Εὐθυμοτέρους γοῦν εἰκὸς ταύτ' ἀκούσαντας εἶναι. Οὐκοῦν σύ, ἐπεὶ παρεγένου, κάλλιστ' ἂν ἀπαγγείλαις; ὁ δὲ ἄσμενος ἀκούσας, καὶ γὰρ αἰὲ φιλαπόδημος ἦν, εἶπεν, Εἰ σὺ τάττοις. Ἀλλὰ τάττω, ἔφη, καὶ προσαπαγγέλλειν κελεύω ὅτι ἐὰν καὶ τάδε εὖ γένηται, πάλιν παρεσόμεθα, ὥσπερ καὶ ἔφαμεν. ὁ μὲν δὴ Δερκυλίδας ἐφ' Ἑλλησπόντου πρῶτον ἐπορεύετο· ὁ δ' Ἀγησίλαος διαλλάξας Μακεδονίαν εἰς Θετταλίαν ἀφίκετο.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

GREEK. (*Counted as three sections.*)

THIRD SECTION: HOMER.

SPRING, 1898.

(*One hour if all three sections are taken; one and a half hours if only one or two sections are taken at one time.*)

I. Translate:

“ Δύσπαρι, εἶδος ἄριστε, γυναιμανές, ἠπεροπευτά,
αἰθ' ὄφελος ἄγονός τ' ἔμεναι ἄγαμός τ' ἀπολέσθαι·
καί κε τὸ βουλοίμην, καί κεν πολὺ κέρδιον ἦεν
ἢ οὕτω λώβην τ' ἔμεναι καὶ ὑπόψιον ἄλλων.
ἦ που καγχαλόωσι χάρη κομόωντες Ἀχαιοί,
φάντες ἀριστῆα πρόμον ἔρμεναι, οὖνεα καλὸν
εἶδος ἔπ', ἀλλ' οὐκ ἔστι βίη φρεσὶν οὐδέ τις ἀλκή.
ἦ τοιόσδε ἐὼν ἐν ποντοπόροισι νέεσσιν
πόντον ἐπιπλώσας, ἑτάρους ἐρίηρας ἀγείρας,
μιχθεὶς ἀλλοδαποῖσι γυναῖκ' ἐυιδέ' ἀνήγες
ἔξ ἀπίης γαίης, νυὸν ἀνδρῶν αἰχμητῶν,
πατρί τε σῶ μέγα πῆμα πόληί τε παντί τε δήμῳ,
δυσμενέσιν μὲν χάρμα, κατηφείην δὲ σοὶ αὐτῷ;
οὐκ ἂν δὴ μείνειας ἀρηίφιλον Μενέλαον;
γνοίης χ', οἴου φωτὸς ἔχεις θαλερῆν παράκοιτιν.
οὐκ ἂν τοι χραίσμη χίθαρὶς τὰ τε δῶρ' Ἀφροδίτης,
ἦ τε κόμη τό τε εἶδος, ὅτ' ἐν κονίησι μιγείης.
ἀλλὰ μάλα Τρῶες δειδήμονες. ἦ τέ κεν ἦδη
λαῖνον ἔσσο χιτῶνα κακῶν ἔνεχ', ὅσσα ἔοργας.”

II. Translate :

τὸν δ' ἄρ' ὑπόδρα ἰδὼν προσέφη κορυθαίολος Ἔκτωρ·
“ Πουλυδάμα, σὺ μὲν οὐκέτ' ἐμοὶ φίλα ταῦτ' ἀγορεύεις·
οἴσθα καὶ ἄλλον μῦθον ἀμείνονα τοῦδε νοῆσαι,
εἰ δ' ἔτεδόν δῃ τοῦτον ἀπὸ σπουδῆς ἀγορεύεις,
ἔξ ἄρα δῆ τοι ἔπειτα θεοὶ φρένας ὤλεσαν αὐτοί,
ὅς κέλεαι Ζηνὸς μὲν ἐριγδούποιο λαθέσθαι
βουλέων, ἅς τέ μοι αὐτὸς ὑπέσχετο καὶ κατένευσεν·
τύνη δ' οἴωνοῖσι τανυπτερόγεσσι κελεύεις
πείθεσθαι, τῶν οὐ τι μετατρέπομ' οὐδ' ἀλεγίζω,
εἴ τ' ἐπὶ δεξι' ἴωσι πρὸς ἠῶ τ' ἠέλιόν τε,
εἴ τ' ἐπ' ἀριστερὰ τοί γε ποτὶ ζόφον ἠερόεντα.
ἡμεῖς δὲ μέγαλοιο Διὸς πειθώμεθα βουλῇ,
ὅς πᾶσι θνητοῖσι καὶ ἀθανάτοισιν ἀνάσσει.
εἷς οἴωνός ἄριστος, ἀμύνεσθαι περὶ πάτρης.

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

FRENCH. (*Counted as three sections.*)

SPRING, 1898.—THREE HOURS.

I. GRAMMAR.

(Each candidate will be required to pronounce some ten or fifteen lines of French to show her knowledge of French sounds.)

1. Give the plural forms of bœuf, aïeul, ciel, verrou, hibou, feu.
2. Give the feminine forms of mou, roux, clos, doux, fou, fin, malin.
3. Put the following French sentences: *Je cueille des fleurs*, in a negative form; *Je cueille des fleurs et des fruits*, in a negative form; *Je lui ai envoyé une lettre*, (a) in a plural form; (b) in an interrogative form.
4. Translate into French: The gentleman you see is a friend of mine.
5. Conjugate in full the present subjunctive of appeler, acheter, jeter.
6. Conjugate in full the present indicative of savoir, pouvoir, dire, devoir, faire, craindre, surprendre, déplaire, absoudre, coudre, moudre, obtenir, reluire, valoir.
7. Conjugate in full the present subjunctive of parvenir, s'asseoir, vouloir, craindre, absoudre, lire, boire.
8. Give the first person singular of the future of acquérir, savoir, faire, vouloir.

II. TRANSLATION.

Le soleil montait, la chaleur s'engouffrait de plus en plus dans ces creux vallons superposés. Le haut Simplon ne m'envoyant plus dans le dos ses aiguillons de glace, je m'arrêtai pour ne pas perdre trop tôt le spectacle de l'ensemble du Valais. Je m'assis sur la mousse d'une roche isolée et j'y mangeai le morceau de pain bis que j'avais acheté au chalet ; après quoi l'ombre des grands sapins s'allongeant d'elle-même obliquement sur moi, et la clochette des troupeaux invisibles perdus sous la ramée berçant ma rêverie, je me laissai aller quelques instants au sommeil.

On appelle entr'acte la durée qui sépare un acte du suivant. Cette durée est variable; mais puisque l'action ne s'arrête point, il faut que, lorsque le mouvement cesse sur la scène, il continue derrière. Point de repos, point de suspension. Si les personnages reparaissaient, et que, l'action ne fût pas plus avancée que quand ils ont disparu, ils se seraient tous reposés, ou ils auraient été distraits par des occupations étrangères : deux suppositions contraires, sinon à la vérité, du moins à l'intérêt.

Cette vaste plaine est peu giboyeuse. Le court espace de temps qui sépare la fin de la moisson du commencement de la vendange, et qui fait aux paysans une halte délicieuse entre deux corvées terribles, suffit et au delà pour abattre les quelques perdrix, les quelques lièvres, les quelques lapins égarés dans nos vignes luxuriantes et touffues. Aussi, les derniers raisins coupés et le vin tiré des cuves, ceux pour qui la chasse est une passion véritable, sachant bien qu'il n'y a plus un coup de fusil à tirer aux bas-fonds, rassemblent-ils leurs chiens et, guêtres aux mollets, sac au dos, prennent-ils avec eux le chemin de la montagne.

L'Abbé Capdepont était un homme grand, sec et maigre. Il avait cinquante ans environ. Ses yeux étaient profondément enfouis, son nez renflé comme celui de Pascal, avait une ampleur monumentale; sa bouche, aux lèvres

minces, sinueuses, était sévère. Une abondante chevelure grisonnante et crépue, où la tonsure blanche produisait l'effet d'une lune vue dans les nuages, enveloppait, pour ainsi parler, cette belle tête sculpturale, dont le ton d'ivoire jauni rappelait les beaux portraits d'ascètes que nous a légués le sombre génie des maîtres espagnols.

Je suis, cette fois, en plein mois de janvier, à Nice. A la bonne heure ! Voilà du vrai Midi ! Ai-je vraiment parlé, la dernière fois de ciel gris et de frimas ? Ces horreurs n'ont duré que quatre jours. Je ne m'en souviens plus. Une matinée a suffi pour tout réparer. Bonjour, soleil !

Parbleu, c'est encore l'hiver. L'air est frais et vif, et, d'instinct, je hâte le pas à l'ombre. Vite, allons nous asseoir en plein rayon, avec la bonne chaleur sur les épaules, devant le grand café de la place Masséna. Ce n'est pas de chartreuse, c'est d'or liquide que le garçon vient d'emplir devant moi ce petit verre. Elle exhale un léger parfum, la rose précoce, entre deux brins de mimosa, que ce gamin m'a vendue pour ma boutonnière. Et je reste là longtemps, ébloui de lumière, enveloppé d'une douce tiédeur, écoutant vaguement, à travers le tumulte de la rue et le caquetage des consommateurs autour des tables voisines, ce vieil air de Verdi, triste et passionné, que raclent deux violons sous les arcades.

Que la pluie à déluge au long des toits ruisselle !
Que l'orme du chemin penche, craque et chancelle
Au gré du tourbillon dont il reçoit le choc !
Que du haut des glaciers l'avalanche s'écroule !
Que le torrent aboie au fond du gouffre, et roule
Avec ses flots fangeux de lourds quartiers de roc !
Qu'il gèle ! Et qu'à grand bruit, sans relâche, la grêle
De grains rebondissants fouette la vitre frêle !
Que la bise d'hiver se fatigue à gémir !
Qu'importe ? N'ai-je pas un feu clair dans mon âtre
Sur mes genoux un chat qui se joue et folâtre,
Un livre pour veiller, un fauteuil pour dormir ?

BRYN MAWR COLLEGE.

EXAMINATION FOR MATRICULATION.

GERMAN. (*Counted as three sections.*)

SPRING, 1898.—THREE HOURS.

I.—GRAMMAR.

1. Give (together with the article) the genitive singular and the genitive plural of the nouns :

Dach (n.)	Mutter (f.)	Tag (m.)
Form (f.)	Philosoph (m.)	Vorfahr (m.)
Hammer (m.)	Punkt (m.)	Wald (m.)
Mädchen (n.)	Rad (n.)	Wand (f.)

2. Decline “das helle Licht” and “ein helles Licht.”

3. Give in the third person singular, (1) the present indicative, (2) the preterit, (3) the preterit subjunctive, and (4) the past participle of the following verbs:

ablaufen	entfliehen	stechen
antreiben	ernennen	verschlingen
besitzen	geschehen	vorgreifen
einladen	sinnen	zurückhalten

II. TRANSLATION.

I.

Der verschlossene Wagen fuhr mit dem jungen Baron die ganze Nacht hindurch fort. Allenthalben waren schon Pferde in Bereitschaft, und da der Mond sehr hell schien, konnte man so schnell, wie bei Tage, reisen. In den dicht verhängten Wagen fielen nur wenige Strahlen hinein; doch bemerkte der Entführte, dass ein Mann an seiner Seite, und ein anderer ihm gegenüber sass. Als er sich von seinem ersten Erstaunen erholt hatte, wollte er seinen

Gesellschaftern Rede abgewinnen; aber sie beantworteten keine seiner Fragen oder Bemerkungen. Wohin führt man mich? rief er endlich in der grössten Ungeduld. Ruhe! antwortete der starke Mann, alles wird sich aufklären.—Man verkennt mich, man verwechselt mich mit jemand anderm!—Nichts weniger.—Was hat man mit mir vor?—Morgen am Ort Ihrer Bestimmung werden sie alles erfahren.

Als der Gefangene Miene machte, den Wagen zu öffnen, ergriffen ihn die Unbekannten gewaltig, und der eine rief drohend: keine Umstände! Finden Sie sich nicht gutwillig, so haben wir das Recht, Sie zu binden und zu knebeln; das geschieht auch bei dem ersten Versuche zu entfliehen, oder wenn Sie jemand Fremdes anreden wollten. Auch kann es Ihnen nichts nutzen; denn wir haben die gemessenste Ordre, die wir vorzeigen können, und auf welche uns in jeder Stadt Beistand geleistet werden muss.

(Tieck.)

II.

Als ich am nächsten Tage erwachte, dauerte es lange, bis ich mich nur einigermaßen in meine Situation finden konnte. Mein Schlaf war gegen Morgen von schweren Träumen geängstigt worden, und diese Träume warfen noch ihre dunkeln Schatten über meine Seele. Ich glaubte noch die Stimme meines Vaters zu hören, und jetzt erinnerte ich mich auch, was es gewesen war. Ich war vor meinem Vater geflohen, bis ich an einen glatten Teich kam, in welchen ich mich hineinwarf, um meinem Verfolger schwimmend zu entgehen. Aber der glatte Teich hatte sich plötzlich in ein wildbewegtes Meer verwandelt, von dessen Wellen ich bald zum Himmel geschleudert, bald in den Abgrund gerissen wurde. Eine fürchterliche Angst kam über mich; ich wollte rufen: Vater, rette! aber ich vermochte es nicht, und mein Vater sah mich nicht, trotzdem er immer auf Armeslänge, wie es schien, am Ufer hin—und herlief, die Hände rang und nach seinem Sohn jammerte, der sich ertränkt habe.

(Spielhagen.)

III.

Erschrocken sah Lenore zur Seite. An dem Baume lehnte die schlanke Gestalt eines fremden Mannes, die Arme übereinander geschlagen, auf dem edel geformten Gesicht ein spöttisches Lächeln. Der Fremde schritt langsam auf sie zu und griff an seinen Hut. "Es wird dem alten Herrn sauer," sagte er, auf das Pferde weisend. "Hoffe, Sie kennen mich noch."

Lenore sah ihm starr ins Gesicht, wie einer Erscheinung, und glitt endlich in ihrer Verwirrung vom Pferde herunter. Ein Bild aus alter Zeit trat ihr leibhaftig entgegen, das kühle Lächeln, die elegante Gestalt, die nachlässige Sicherheit dieses Mannes gehörten auch zu der Vergangenheit, an die sie eben gedacht hatte. "Herr von Fink," rief sie verlegen; "wie wird sich Wohlfart freuen Sie zu sehen."

"Und ich," erwiderte Fink, "habe ihn schon aus der Ferne betrachtet, und wenn ich nicht aus gewissen untrüglichen Kennzeichen"—hier sah er wieder auf Lenore—"erkannt hätte, dass er es ist, der dort als geharnischter Mann durch den Sand wadet, ich hätte es nicht für möglich gehalten.

(Freytag.)

IV.

Einst wollt' ich hinaus in den grünen Wald,
Da zogen die Sorgen mit;
Vergebens gebot ich wol zehnmal Halt,
Sie folgten mir Schritt für Schritt.

Doch als wir kamen wol in den Busch,
Begann ein Geflüster sogleich;
Die Vöglein riefen; Ihr Sorgen, husch,
Hinaus aus dem grünen Bereich!

Das Gras erhob sich und hielt sie auf,
Ein Windstoss hauchte sie fort,
Die Bäume rauschten und schlugen drauf,
Sie flohen von Ort zu Ort.

(Pfarrius.)

BRYN MAWR COLLEGE.

EXAMINATION FOR ADVANCED STANDING.

SOLID GEOMETRY.

SPRING, 1898.—TWO HOURS.

(When this paper is taken with Trigonometry, the time allowed is one and a half hours; questions 1 and 5 are then to be omitted, and the reason for the omission stated.)

1. Under what conditions can a plane be passed through two given straight lines?

Prove that there cannot be two perpendiculars drawn to a given plane from a point without it. How many parallels can be drawn to a given plane from a point without it?

2. Prove that the projection of a given straight line on a plane is a straight line; and that the angle which the straight line makes with its projection on the plane is the least angle made with any line of the plane.

3. Prove that the sum of any two face angles of a trihedral angle is greater than the third face angle.

How does a trihedral angle differ in appearance from a dihedral angle?

4. Prove that if two pyramids have equal bases and equal altitudes, the sections made by planes parallel to the bases and at equal distances from the bases are equal.

5. Give and prove an expression for the volume of a frustum of a triangular pyramid.

6. Prove that the lateral surface of the frustum of a right circular cone is equal to the product of its slant

height by the circumference of the circular section that is half way between the plane faces.

7. Prove that every plane section of a sphere is a circle. What is meant by the poles of a circle on a sphere?

Prove that all points on a circle are equally distant from a pole of the circle.

8. Given a box in the shape of a right circular cylinder, altitude = radius of base = 1 ft., find the volume of the greatest (1) hemisphere, (2) sphere, (3) cone, that can be placed inside it.

1. Prove that the sum of the n angles of an n -sided rectilinear polygon is $(n-2) 180^\circ$. Hence find, in radians, the angle (i.) of a regular hexagon, (ii.) of a regular octagon.

2. Prove that

$$(i.) \sin^3 \theta + \cos^3 \theta = (1 - \sin \theta \cos \theta) (\sin \theta + \cos \theta);$$

$$(ii.) \tan \left(\frac{\pi}{2} + \theta \right) = -\cot \theta.$$

3. Prove the formulæ for $\sin 2A$, $\cos 2A$, in terms of $\sin A$, $\cos A$.

Given that $\sin 10^\circ = .17$, find $\cos 20^\circ$, $\cos 40^\circ$ to two places of decimals.

4. Trace the variations in the sign and magnitude of $\tan \theta$ as θ increases from 0 to 2π .

State and prove the formulæ for

$$\sin (180 \pm A), \cos(180 \pm A), \tan (360^\circ - A).$$

5. Prove that the logarithm of the root of a number is equal to the logarithm of the number divided by the index of the root.

State and explain the rule for finding the characteristic of a logarithm.

