TRANSLATE INTO LATIN.

Write only as much as you can revise carefully.

---

1. I do not [1]care [2]how [3]rich Gyges [4]is.

   [1]Express with *refert.*   [2]*Quam.*   [3]*Dives.*   [4]*Esse.*

2. [1]Who [2]more illustrious in [3]Greece [4]than Themistocles? [5]who [6]when he [7]had been driven into [8]exile [9]did not do harm to his [10]thankless [11]country, but [12]did [13]the same that Coriolanus [12]had done [14]twenty [15]years [16]before.

   [1]*Quis.*   [2]*Clarus.*   [3]*Graecia.*   [4]Write in two ways.   [5]*Qui.*   [6]*Cum.*   [7]*Expellere.*   [8]*Exilium.*
   [9]Do harm to, *Injuriam ferre* with Dative.   [10]*Ingratus.*   [11]*Patria.*   [12]*Facere.*   [13]*Idem.*
   [14]*Viginti.*   [15]*Annus.*   [16]*Ante.*

3. In the [1]first of the [2]spring the consul [3]came to Ephesus, and [4]having received the [5]troops [6]from Scipio he [7]held a [8]speech [9]in-presence-of the [10]soldiers, [11]in which, [12]after extolling their [13]bravery, he [14]exhorted them [15]to undertake a [16]new [17]war [18]with the Gauls, who [19]had [[11]as he said] helped Antiochus [11]with [20]auxiliaries.

   [1]*Primus.*   [2]*Ver.*   [3]*Venire.*   [4]*Accipere.*   [5]*Copiae.*   [6]*A.*   [7]*Habere.*   [8]*Contio.*   [9]*Apud.*   [10]*Miles.*
   [11]Omit.   [12]*Collaudare* (Ablative Absolute).   [13]*Virtus.*   [14]*Adhortari.*   [15]*Suscipere* with *ad* and Gerundive.   [16]*Novus.*   [17]*Bellum.*   [18]*Cum.*   [19]*Juvare.*   [20]*Auxilium.*

Admissions

JULY, 1869.

LATIN GRAMMAR.

☞ **Write legibly, and number your answers carefully to correspond with the questions.**

I. Decline in the singular: *facies, idem, ovile, sidus, filius.* Decline in the plural: *portus, dea, navis.* Write the gender over the nouns (rules not required), and mark the quantity of all penultimate and final syllables.

(1) Give the significance of the terminations *-ile* in *ovile;* *-men* in *gestamen.* (2) Form an abstract noun from *felix;* from *aeger.* (3) Form a noun denoting the masculine agent from *adjuvo,* and a frequentative verb from *cieo,* and account for the quantity of their penultimate vowels. (4) Compare *humilis, juvenis,* and adverbs formed from *felix* and *aeger.*

II. Give the principal parts of *cado, caedo, tono, reperio, curro, pasco, paciscor,* marking the quantity of the penult.

(2) Give all the Infinitives and Participles of *abeo, ulciscor;* the Present Indicative of *fio;* the Future Indicative Active and the Present Subjunctive Passive of *munio,* with the quantity of all penults.

III. What case or cases follow *super, tenus, recordor, fruor, similis?* (2) Give the principal parts of *parco* and *confido,* and the case that follows each. (3) Give the rules for the two cases after *pudet, do, doceo, moneo.* (4) Give the Latin for "at home," "at Carthage," "from Carthage," "from Italy," "to Athens."

Tu *discessu* ceterorum nostra tamen, *qui* remansissemus, *caede* te contentum esse dicebas. (5) Give the rules for *discessu* and *caede.* What is the antecedent of *qui?*

IV. Give the rules for the Subjunctive after *dum, cum, quominus.* (2) Would *ne* or *ut non* follow *restat* and *moneo* respectively? Why?

Statuisti quo quemque proficisci *placeret,* * * * * * dixisti paululum tibi esse etiam nunc morae, quod ego *viverem.* Reperti sunt duo equites Romani qui te ista cura *liberarent.* Idoneus est qui *impetret* quem legatum *velit.* Exclusi eos quos tu ad me *salutatum* miseras.

(3) Explain the Subjunctives in the above sentences; the tense of *impetret.* (4) Give the rule for *salutatum.*

JULY, 1869.

GREEK GRAMMAR.

[N.B. All the Greek words must be written with the accents.]

I.*

Give an example of Elision. In what words does the accent of the elided vowel disappear with the vowel? What is the word τέ called with respect to accent? Give the other words of the same sort. Write τινός after ἀνθρώπου with the accents properly disposed; write τέ after σῶμα.

II.*

Decline πόλις, Σκύλης, οἰκία, ὀστέον in the Singular, and σῦκον, νεώς, δώς, τριήρης in the Dual and Plural. Give the Gen. Dat. and Acc. in all genders and numbers of ἄξιος, γλυκύς, of the Pres. Act. Participle of ἵστημι, and of the Perf. Act. Partic. of βουλεύω (or παύω).

III.

Compare σοφός, τάλας, ἀληθής, πολύς. Decline the Comparative of μέγας. Form an adverb from ἡδύς and compare it. Decline σύ in the Dual and Plural and οὗτος in the Singular. Give the Cardinal Numerals as far as 12.

IV.

Give synopses (through all the Moods) of the Aor. Mid. and Aor. Pass. of βουλεύω (or παύω), and inflect the Imperatives. Give synopses of the Perf. Pass. of πλέκω and the Pres. Act. of δίδωμι. Inflect the Perf. Pass. Indic. of πλέκω and the Imperfect Pass. of τιμάω.

V.

Where are μενῶ, ἐπαύσω, λιπῶ, στῶ, ἴω, and ἐδίδω formed (i.e. tense, mood, voice), and from what verbs?

---

* Candidates for the Sophomore or any higher Class may omit questions I and II, and answer the following:—

VI.

What is the construction in Object-Clauses after verbs of striving? How do such clauses differ from Pure Final Clauses? What is a General Supposition? How are General Suppositions expressed? How are Prohibitions in the 2nd and 3rd persons expressed in Greek? Translate ἔφη δώσειν εἰ δύναιτο, and state what form the last three words would have in the Direct Discourse.

July 1869.

GREEK COMPOSITION.

[N.B. All the Greek words must be written <u>with the accents.</u>]

I.

As[1] Xenophon[2] was[1] sacrificing[3], a messenger[4] arrived[5] from Mantineia[6] announcing[7] that his son[8] Gryllus[9] was dead[10].

1 omit.	6 Μαντίνεια.
2 Ξενοφῶν.	7 λέγω.
3 θύω.	8 υἱός.
4 ἄγγελος.	9 Γρύλλος.
5 ἥκω.	10 to die, θνήσκω.

II.
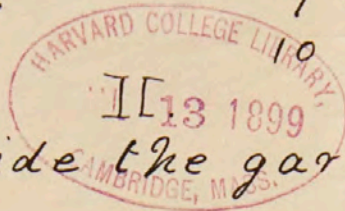
Then[1] he[2] laid[3] aside the garland[4], but[5] continued[6] to sacrifice.

1 καί.
2 ἐκεῖνος.
3 ἀποτίθεμαι.
4 στέφανος.
5 δέ preceded by μέν.
6 διατελέω.

III.

But when[1] the messenger had added[2] this[3] also[4], that he had died victorious[5], Xenophon put[6] the garland on[6] again[7].

1 ἐπεί.	4 καί.
2 προστίθημι.	5 νικάω (participle)
3 ἐκεῖνος.	6 ἐπιτίθεμαι.

7 πάλιν.

July 1869.

HISTORY AND GEOGRAPHY.

[Candidates for the Freshman Class will take I., II., III., and any other two. Candidates for the Sophomore Class will take IV., V., VII., VIII., IX.]

I. Bound the *basin* of the Po, of the Mississippi, of the St. Lawrence.

II. Name the chief rivers of Ancient Gaul and Modern France. Is France larger or smaller than Transalpine Gaul? What are the two principal rivers that rise in the Alps? Where is Mount Blanc?

III. Where is the Source of the Danube? of the Volga? of the Ganges? of the Amazon?

IV. Describe the route of the Ten Thousand, or lay it down on a map.

V. Leonidas, Pausanias, Lysander.

VI. Pharsalia, Philippi, Actium, — geographically and historically.

VII. Supply the two names left blank in the following passage from the Oration for the Manilian Law :

"Non dicam duas urbes potentissimas, *Carthaginem* et *Numantiam* ab eodem —— esse deletas; non commemorabo nuper ita vobis patribusque esse visum, ut in uno —— spes imperii poneretur, ut idem cum *Jugurtha*, idem cum *Cimbris*, idem cum *Teutonis* bellum administraret."

Who was Jugurtha? Where was Numantia?

VIII. Compare Athens with Sparta.

IX. Pericles : — the Man and his Policy.

Admissions

JULY, 1869.

ARITHMETIC.

☞ Give the work in full; — reduce each answer to its simplest form; — and write and arrange your exercise in a legible and orderly manner.

Applicants for ADVANCED STANDING may omit Nos. 1, 2, 3, and 6.

*1. Reduce $\dfrac{184800}{1180410}$ to its lowest terms.

What is a *prime number?* When are two numbers said to be prime to *each other?* Reduce the numerator and denominator of the above fraction to their *prime factors.*

*2. From $5\frac{1}{3}$ subtract $\dfrac{3\frac{7}{16}}{3\frac{1}{9}} \div \left(\dfrac{3}{10} \text{ of } \dfrac{4\frac{5}{7}}{2\frac{2}{3}} \text{ of } 4\frac{1}{6} \right)$. Simplify by cancelling.

*3. Divide 33368949.63 by 0.007253. What is the quotient of 3336.894963 by 72530? What is the third power of 0.1? of 100? Write these answers in *words*.

4. Find the cube root of 0.0093 to five places of decimals.
Find the square root of 531.5 to three places of decimals.

5. Reduce to their lowest terms as vulgar fractions the infinite or circulating decimals $0.\dot{2}2\dot{5}$, $0.00\dot{2}2\dot{5}$, and $0.25\dot{2}2\dot{5}$. Reduce $\frac{3}{7}$ to a circulating decimal.

*6. From 1 sq. rod 5 sq. ft. subtract 7 sq. yd. 139 sq. in.

7. Find the *amount* of £50 12s. 5d. at simple interest at 8 per cent., at the end of 5 years 2 months and 3 days.

8. One metre = 39.37 inches. Compute from this datum the value of 4 miles in kilometres.

LOGARITHMS AND TRIGONOMETRY.

9. What is the logarithm of 1 in any system? of any number in a system of which that number is the *base?* In a system of which the base is 4, what is the logarithm of 64? of 2? of 8? of $\frac{1}{2}$?

10. Find by logarithms, using arithmetical complements, the value of the fraction

$$\frac{(0.02183)^2 \times (7)^{\frac{2}{3}}}{\sqrt{(0.0046)} \times 23.309}.$$

11. Prove the formula for the *cosine of the sum of two angles;* and deduce the formulas for the cosine of the *double* of an angle and the cosine of the *half* of an angle.

12. In what quadrants is the cosine *positive*, and in what quadrants *negative?* Prove the values of the cosine of 0°, 90°, 180°, 270°.

13. Given in an oblique triangle $b = 0.254$, $c = 0.317$, $B = 46°$. Solve completely.

Admission

JULY, 1869.

ALGEBRA.

☞ Give the *work in full*; reduce the answers to their *simplest form*; and write and arrange your exercise in a *legible* and *orderly* manner.

---

1. Reduce the following expression to its simplest form:
$$(9a^2b^2 - 4b^4)(a^2 - b^2) - (3ab - 2b^2)(3a[a^2 + b^2] - 2b[b^2 + 3ab - a^2])b.$$

2. Divide $36x^2 + 1 - 64x^4 - 12x$ by $6x - 1 - 8x^2$.

3. What is the *reason* that when different powers of the same quantity are multiplied together their exponents are *added?*

4. Reduce to one fraction, with the lowest possible denominator:
$$\frac{3a + 2b}{a + b} - \frac{25a^2 - b^2}{a^2 - b^2} - \frac{a}{2b}.$$

5. Divide $\dfrac{x + y}{x^2 - 2xy + y^2}$ by $\dfrac{x^2 + xy}{x - y}$; and reduce the answer to its lowest terms.

6. Find x, in terms of a, b, and c, from the equation $\dfrac{a - 2x}{b} = \dfrac{cx - bc}{a}$. What is the value of x when $a = 2$, $b = -1$, $c = 3$?

7. A man bought a watch, a chain, and a locket for \$216. The watch and locket together cost three times as much as the chain, and the chain and locket together cost half as much as the watch. What was the price of each?

8. Solve the equation
$$\frac{5x}{x + 12} - \frac{8 - 3x}{3x - 1} = 1.$$

9. Find $(a - b)^6$ and $\left(xy - \dfrac{x^3}{2y}\right)^6$ by the Binomial Theorem.

Admissions

JULY, 1869.

PLANE GEOMETRY.

1. Prove that the perpendicular from the centre of a circle upon a chord bisects the chord and the arc subtended by the chord.

2. To circumscribe a circle about a given triangle.

3. Prove that two angles are to each other in the ratio of two arcs described from their vertices as centres with equal radii.

4. Prove that a line drawn through two sides of a triangle parallel to the third side divides those two sides into proportional parts.

5. State and prove the proportion which exists between the parts of two chords which cut each other in a circle. State what proportion exists when two secants are drawn from a point without the circle.

6. Prove that two regular polygons of the same number of sides are similar.

7. Prove that similar triangles are to each other as the squares of their homologous sides.

8. Show how the area of a polygon circumscribed about a circle may be found; then how the area of a circle may be found; then prove that circles are to each other as the squares of their radii.