

Visceribus super incumbens; lavit improba
teler

Ora cruor:

Sic ruit in densos alacer Mezentius hostes.

Sternitur infelix Acron, et calcibus atram

Tundit humum expirans, infractaque tela
cruentat.

VIRGIL, *Æneid* X., 719-731.

1. Scan the first two lines of the extract, marking the quantity of each syllable, and explaining any peculiarities.

2. Parse *pacis*, *impastus*, *arrexist*, *lavit*.

3. Give the force of the inseparable particle, *ve*.

IV.*

Translate:

Cingitur ipse furens certatim in prælia
Turnus:

Jamque adeo, Rutulum thoraca indutus, ænis
Horrebat squamis; surasque incluserat auro,
Tempora nudus adhuc; laterique accinxerat
ensem;

Fulgebatque altâ decurrens aureus arce;
Exsultatque animis, et spe jam præcipit hos-
tem

Qualis ubi abruptis fugit præsepia vinclis
Tandem liber equus, campoque potius aper-
to,

Aut ille in pastus armentaque tendit equarum,
Aut assuetus aquæ perfundi flumine noto,
Emicat, arrectisque fremit cervicibus alte
Luxurians; luduntque jubæ per colla, per
armos.

Ibid, XI., 486-497.

1. Cite a parallel passage from a Greek author.

2. Parse *tempora*, *politus*, and *emicat*.

1. Explain the principal uses of the Ablative case, giving short examples.

2. Parse and explain the words italicised in these phrases: *Macte esto virtute pro Jupiter*, *Manlius locutus fertur*.

3. Give the Perfects, Supines and Infinitive Moods of *tono*, *fleo*, *pergo*, *laccio*, *ordior*, *adipiscor*.

4. Translate the following: (a) It seems that Cicero erred. (b) Ambassadors came from Rome to complain of injuries. (c) This is too good to be true.

* Special importance is attached to the accurate translation of the extract.

ALGEBRA.—PROBLEMS.

40. Sum, by common Algebra, the series:

$$\frac{7}{3 \cdot 4 \cdot 5 \cdot 6} + \frac{11}{4 \cdot 5 \cdot 6 \cdot 7} + \frac{17}{5 \cdot 6 \cdot 7 \cdot 8} + \frac{25}{6 \cdot 7 \cdot 8 \cdot 9} + \text{etc.}$$

to n terms, and also to infinity.

41. Sum the series:

$$\frac{11}{2 \cdot 3 \cdot 4 \cdot 5 \cdot 6} + \frac{35}{3 \cdot 4 \cdot 5 \cdot 6 \cdot 7} + \frac{81}{4 \cdot 5 \cdot 6 \cdot 7 \cdot 8} + \frac{155}{5 \cdot 6 \cdot 7 \cdot 8 \cdot 9} +$$

$\frac{263}{6 \cdot 7 \cdot 8 \cdot 9 \cdot 10} + \text{etc.}$, to n terms, and also to infinity.

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42. ABC is any triangle inscribed in a given circle, $ABEC$, of which AE is a diameter. AQ bisects angle between AE , and the perpendicular from A on base BC ; shew that angle $BAC =$ angle subtended by arc QC at centre of circle.

43. The first term of a series is a , the second term is b , and each subsequent term is a Geometric mean between the two preceding terms; shew that the n^{th} term is

$$b \left(\frac{a}{b} \right)^{\frac{n-2}{2} - (-1)^n}$$

44. Sum the series $1 + 0 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \frac{1}{64} + \dots$ to $2n$ terms, and hence find the product of the first $2n$ terms of the series in Question 43.

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45. In a given triangle to inscribe a triangle equiangular to a given triangle.

46. Through a given point to draw a straight line so that the parts of it intercepted between that point and perpendiculars drawn from two other given points may have a given ratio.

47. $ABCD$ is a square, AC a diagonal, and E the middle point of AD . Shew that the intersection of BE with AC is a point of trisection of AC .