

the future tense, and in the first, though used as an auxiliary, it retains more of its original meaning. The reason why Mr. Mason, treats 'will undervalue' as a simple predicate is, because it would be inconsistent to treat the present tense of the verb as a simple predicate, and the future as a complex predicate.

3. Parse the italicised words:—

(a) The brightest jewel in the *Queen* of *England's* crown.

(b) I saw a dog *running* across the field.

(c) I *had as lief* not *be*, as live to be in awe of such a thing as I *myself*.

Queen is a common noun, of the feminine gender, of the singular number, and in the possessive case depending on the noun *crown*.

England is a proper noun, of the neuter gender, singular number, and in the objective case governed by the preposition *to*.

Running is the imperfect active participle of the verb run, qualifying the noun *dog*.

For full explanation of the third sentence refer to foot note on page 200 of Mason Grammar. Mr. Mason, here parses 'had' as in the subjunctive mood, 'lief' its complementary adjective, and 'be' as a dependant infinitive to the object of 'had.'

Myself is a reflexive pronoun of the first person, mas. or fem. gender, singular number, and in the nominative case, apposition with the pronoun I.

4. Why is it that although the English language has derived many words from the Latin, it is not a Romance language?

Ans.—1. Because the great majority of words in use are Saxon. 2. Because its grammar is purely Saxon. Fuller information can be obtained in almost any text-book on the subject.

MATHEMATICS.

Toronto University,—Pass Algebra, 1859.

1. State the laws which obtain in the combinations of algebraical symbols.

In what sense is the symbol ab to be interpreted when a and b are not whole numbers?

If the index law had been assumed to be

$$a^x b^x = (a + b)^x$$

we should have had

$$a^n = (a + n)^x = n^a$$

What, in this system, would have been the interpretation of the symbols a^1 , 0^a ?

2. Every square number is either divisible by 3 or becomes so by the addition of 2; and the product of any three consecutive integers, the middle one of which is odd is divisible by 24.

3. Prove

$$n(n+1)^2 - (n-1)n^2 = 4n^3$$

and find the value of

$$\frac{(ab+1)(x^2+1)}{(xy+1)(a^2+1)} - \frac{x+1}{y+1}$$

When $x = \frac{1+a}{1-a}$ and $y = \frac{1+b}{1-b}$

4. Describe Horner's method of synthetic division. Divide

$$7x^5 + 21x^4y + 35x^3y^2 + 35x^2y^3 + 21xy^4 + 7y^5 \text{ by } x+y \text{ and the quotient by } x^2 + xy + y^2.$$

Explain how this method may be employed to find the value of an integral function of x when a value a is substituted herein for x . For example, required the value, when

$$x = -12, \text{ of } x^5 + 5x^4 - 88x^3 - 40x^2 - 151.$$

5. Investigate a rule for finding the highest