

ARITHMETIC.

1. What is meant by "numeration"? Explain by an example. Divide two hundred and seventy-five million eight thousand and fifty by thirty thousand and five.
2. Define a "multiple" of any number; also a "common multiple" and the "least common multiple" of any two or more numbers. Determine the L.C.M. of 12, 15, 35, 560.
3. If, with a capital of £1,500, I gain £140 in eight months, in what time, with a capital of £546, should I gain £45 10s.?
4. State and explain the rules for (a) the multiplication and (b) the division of fractions. Multiply $\frac{8}{9}$ of $3\frac{6}{7}$ by $\frac{7}{12}$ of $15\frac{9}{10}$. Divide $2\frac{2}{3}$ of $2\frac{3}{4}$ by $2\frac{3}{4} - 2\frac{1}{4}$.
5. What fraction of 2lb. 10oz. av. must be added to 1lb. 8oz. troy to give 3lb. 7oz. 10dwt.?
6. Find value of $\frac{1.18}{.152} \times \frac{3.04}{295} \div .00125$.
7. Extract the square root of $1383\frac{21}{25}$; also of $\frac{.00125}{.18}$.
8. Find the true discount on £512 15s. 3d., due 52 days hence, at $2\frac{1}{2}$ d. per cent. per day.
9. Find the average of 9, $27\frac{1}{2}$, 0, $\frac{3}{4}$, 15, $8\frac{1}{8}$, 26; and express the fractional part decimally.
10. A vessel and her cargo are worth £125,426: for what sum must they be insured at $8\frac{1}{2}$ per cent., so that, if lost, the owners may recover both the value of the ship and cargo, and also the premium paid as insurance?
11. The dimensions of a room are as follows: $5\frac{2}{3}$ yd. long by $4\frac{1}{2}$ yd. broad and 10ft. high, with two windows in it, each 6ft. by $3\frac{1}{4}$ ft., a door $7\frac{1}{2}$ ft. by 4ft., and a fireplace 5ft. by 4ft.: what will it cost to distemper the ceiling at 6d. per square yard, and paper the walls with paper 20 inches wide, costing 5s. 6d. the dozen yards?

GEOGRAPHY.

1. Write what you know of the Off-lying Islands of New Zealand.
2. Two persons start at the same time to travel round the world; one goes E., the other W. What discrepancy would they find in their time when they arrived home again? Account for it.
3. These travellers start from London and go due E. and W. Where would they meet when they had gone half-way; and what countries, seas, &c., would each have crossed?
4. Where are supplies of cinnamon, nutmegs, cork, indiarubber, tapioca, sandalwood, mahogany, and logwood chiefly obtained from?
5. Draw a sketch-map of the world, marking the principal mountain-ranges on it.
6. What are the principal agents of change in the earth's surface? Describe their effect, and illustrate by examples.

LATIN.

1. Translate—

Intactis opulentior	Campestres melius Scythae,
Thesauris Arabum et divitis Indiae,	Quorum plaustra vagas rite trahunt domos,
Caementis licet occupes	Vivunt, et rigidi Getae,
Tyrrhenum omne tuis et mare Apulicum,	Immetata quibus jugera liberas
Si figit adamantinos	Fruges et Cererem ferunt,
Summis verticibus dira Necessitas	Nec cultura placet longior annua:
Clavos, non animum metu,	Defunctumque laboribus
Non mortis laqueis expedit caput.	Aequali recreat sorte vicarius.
2. Where were "Tyrrhenum . . . et mare Apulicum"? Who were "rigidi Getae"?
3. Parse fully all the words in—

Defunctumque laboribus
 Aequali recreat sorte vicarius.

4. Translate—

Aut agitur res in scenis, aut acta refertur.
 Segnius irritant animos demissa per aurem,
 Quam quae sunt oculis subjecta fidelibus, et quae
 Ipse sibi tradit spectator. Non tamen intus
 Digna geri promes in scenam; multaque tolles
 Ex oculis, quae mox narret facundia praesens.
 Ne pueros coram populo Medea trucidet,
 Aut humana palam coquat exta nefarius Atreus,
 Aut in avem Progne vertatur, Cadmus in anguem.
 Quodcunque ostendis mihi sic, incredulus odi.
 Neve minor, neu sit quinto productior actu
 Fabula, quae posci vult et spectata reponi:
 Nec deus intersit, nisi dignus vindice nodus
 Inciderit: nec quarta loqui persona laboret.

5. Explain the allusions in the last two lines of this passage (Question 4).
6. Translate—

Romani ex improvise pulveris vim magnam animadvertunt; nam prospectum ager arbustis consitus prohibebat. Et primo rati humum aridam vento agitari, post ubi aequabilem manere et, sicuti acies movebatur, magis magisque appropinquare vident, cognita re properantes arma capiunt ac pro castris, sicuti imperabatur, consistunt. Deinde, ubi propius ventum est, utrimque magno clamore concurrunt. Numidae tantummodo remorati, dum in elephantis auxilium putant, postquam eos impeditos ramis arborum atque ita disjectos circumveniri vident, fugam faciunt ac plerique