

10. Divide 36 into three such parts that $\frac{1}{2}$ of the first, $\frac{1}{3}$ of the second, and $\frac{1}{4}$ of the third shall be equal to each other.

11. Eight persons had to pay a sum of money; but three went insolvent, so the others had to pay £60 each more. What was the total amount to be paid?

GEOMETRY.

1. An equiangular triangle is also equilateral.

2. All the exterior angles of any rectilineal figure, made by producing the sides successively in the same direction, are together equal to four right angles.

3. In every triangle the square on the side subtending either of the acute angles is less than the squares on the sides containing that angle by twice the rectangle contained by either of these sides and the straight line intercepted between the acute angle and the perpendicular let fall upon it from the opposite angle.

4. If in a circle two straight lines cut one another, which do not pass through the centre, they do not bisect each other.

5. Upon a given straight line to describe a segment of a circle which shall contain an angle equal to a given rectilineal angle.

6. Describe a circle about a given square.

7. Trisect a given straight line.

CHEMISTRY.

1. What volume of air is required for the oxidation of that quantity of metallic copper which is reduced from its oxide by 20 grammes of hydrogen? [11.2 litres of hydrogen weigh 1 gramme.]

2. What volume of carbonic acid must be passed over white-hot charcoal for the preparation of 16 litres of carbonic oxide?

3. What is the action of sodium on water? Give formulæ illustrative of your reply.

4. What is the simplest method of procuring sulphuretted hydrogen, and what is its principal application in chemistry?

5. What meaning attaches to the terminals *ide*, *ite*, *ate*, *ous*, *ic*, in chemistry, as in oxide, sulphite, chlorate, sulphurous, phosphoric?

GEOLOGY.

1. Explain what is meant by unconformity, and state what stratigraphical evidence you would seek to determine whether two series of beds were conformable or otherwise.

2. What is the meaning of cleavage, and how is it produced?

3. Give a description of three different classes of faults, and show what conditions would be necessary for these to occur.

4. Describe the different physical conditions under which intrusive rocks occur.

5. What are the main differences between the trachytic and basaltic volcanic rocks?

HISTORY.

1. Describe the condition of Britain under Roman rule.

2. What is the original meaning of the word "Parliament"? Mention the most important constitutional rights which the Commons had acquired in 1500, in 1600, and in 1700.

3. What do you consider the most interesting and important period of English history? Why?

4. Who were the Lollards, Levellers, Covenanters, Pilgrim Fathers, United Irishmen, Chartists?

5. State shortly the principal events in the history of British India, from the days of Clive to those of Clyde.

BOOK-KEEPING.

1. State the special end and aim of book-keeping.

2. Define the term "double entry."

3. Explain the term "debit and credit."

4. Describe the books of account which are necessary in the most simple form of double entry.

5. Prepare specimens of the ruling and headings of such books of account.

6. State the purposes which each book is intended to answer.

7. In the cash-book, state on which folio (right or left hand) the money received is placed, and on which folio the money paid away.

(a.) What does the difference between the totals of the transactions on each side show?

8. What is understood by "bills payable"?

(a.) If you give a promissory note or accept a bill, on which side of the account should you enter the transaction?

9. Explain what is meant by "bills receivable," and on which side of the account they should be entered.

10. What is meant by the term "assets and liabilities"?

11. Journalize the following transactions:—

Commenced business with a cash capital of £10,000, which I lodged in the Bank of New Zealand.

I bought £3,500 of merchandise from Levin and Co.

Paid for goods £1,750 by cheque.

Sold B. Harris goods to the amount of £1,800, and took his bill at three months.

Paid wages £15 by cash.

Drew cheque for petty expenses, £10.

Discounted Harris's bill at bank, and found I am charged £36 discount.

Paid Levin and Co. cheque for £500, and gave them my promissory note at three months for £3,000, with £60 added for interest.

Bought postage and duty stamps, 10s.