

- (7.) Sie hätten nur sehen sollen, mit welcher Bewunderung mich der Bauer betrachtete.
 (8.) Ich ging dann meines Weges weiter.
 (9.) Unterdessen wurde die Stadt durch ein Erdbeben zerstört.
 (10.) Ich will nun hinaufgehen und Sie anmelden.

12. Translate also—

Die zarte unschuldige Therese hatte den schönsten Theil des Frühlings auf dem Krankenbette zugebracht. Als sie nun genas, und wieder Kräfte gewann, da redete sie von den Blumen, und fragte, ob sie auch so schön blüheten wie das vorige Jahr. Denn sie liebte die Blumen sehr, aber sie konnte nicht hinausgehen, um sie zu pflücken. Da nahm Erich, der Bruder des kranken Mädchens, ein Körbchen, und sagte heimlich zur Mutter: Ich will ihr die schönsten des Feldes bringen. Und so ging er hinaus in das Gefilde zum erstenmal. Denn so lange die Schwester darnieder lag, hatte er sie nicht verlassen wollen. Jetzt dünkt' es ihm, als sey der Frühling nie so schön gewesen; denn er sah und empfand ihn mit einem frohen und liebevollen Herzen.

13. Translate into German—

- (1.) I am very much delighted to see you.
 (2.) If you do not walk quicker you will miss the train.
 (3.) We have searched the whole house for your ring, and cannot find it.
 (4.) I think you must have lost that key on your way here.
 (5.) Will you carry my letters to the post-office?
 (6.) I have brought you a pound of tea, a bottle of milk, and a little sugar.
 (7.) Why do you laugh? It is perfectly true.
 (8.) I hope that the reign of the present Emperor will be a peaceful one.
 (9.) I fear my letter is badly written. Have you been able to read it?
 (10.) It is said that Dr. Koch has discovered a remedy for consumption.

Algebra.—For Class D, and for Junior Civil Service. Time allowed: 3 hours.

1. Express in algebraical symbols, "The product of the sum of two quantities by the sum of two others is the sum of the products of each of the former by each of the latter."

Express in words $\frac{a^3+b^3+c^3-3abc}{a+b+c} = a^2+b^2+c^2-ab-bc-ca$.

2. If $x=6$, $y=3$, $z=-\frac{4}{5}$, find the value of

$$x^2+2y^2+3z^2+4yz+5zx+6xy;$$

and if $a=12$, $b=6$, $c=3$, $d=1$, find the value of

$$(a-b+c-d)(a-b+c-d)(a-b+c-d) + (a+b-c+d)(a+b-c+d)(a+b-c+d).$$

3. Multiply together x^2+2x-3 , x^2+2x-8 , $x^2+2x-15$; and divide the product by $x^3-6x^2+11x-6$.

4. Find the factors of the following expressions: $9x^2+9x+2$; $75xy^3-130x^2y^4-9x^3y^4$
 $(2a+b-c)^2-(a-2b+3c)^2$; $a^2b^2c^2-a^2c-b^2c+1$.

5. Find the highest common divisor of $1003(x^4+3x^3-2x^2-6x)$, $1121(x^4y-2x^2y-3x^3y+6xy)$, $1711(x^5y-4xy)$, and the lowest common multiple of $6x^2-5ax-6a^2$, and $4x^3-2ax^2-9a^3$.

6. Simplify—

$$\left(2x - \frac{x^2-y^2}{x}\right)\left(3y + \frac{x^2+y^2}{y}\right) \div \left(\frac{x^2}{y^3} + 5 + \frac{4y^2}{x^2}\right);$$

$$\frac{1+a}{1+a^2} - \frac{1+a^2}{1+a^3} \\ \frac{1+a^2}{1+a^3} - \frac{1+a^3}{1+a^4}.$$

7. If $x = a + b + \frac{(a-b)^2}{4(a+b)}$, and $y = \frac{a+b}{4} + \frac{ab}{a+b}$, prove that $(x-a)^2 - (y-b)^2 = b^2$.

8. Solve the equations—

$$\frac{9x+5}{12} - \frac{4x-2}{7x-1} = \frac{12x+3}{16} - \frac{4x+3}{7x+9} + \frac{11}{48};$$

$$\frac{x+p}{x-q} + \frac{x+q}{x-p} = 2.$$

9. A debtor can pay his creditors 3s. 4d. in the pound; but if his assets had been five times as great as they were, and his debts two-thirds as great as they were, he would have had a surplus of £250 after paying his debts. How much did he owe?

Euclid.—For Class D, and for Junior Civil Service. Time allowed: 3 hours.

1. Define a plane surface, a rectilineal angle, a rectilineal figure, a circle, a rhombus, a trapezium.

2. Explain, with the aid of diagrams, the following terms: Perpendicular, hypotenuse, vertical angles, alternate angles, interior angles, segment, perimeter, gnomon.

3. The angles at the base of an isosceles triangle are equal to one another, and if the equal sides be produced the angles on the other side of the base shall be equal.

4. To draw a straight line at right angles to a given straight line from a given point in the same.

Show how to construct a right-angled triangle the hypotenuse of which shall be double of the base.

5. A parallelogram has its opposite sides and angles equal, and it is bisected by either diagonal.

Enunciate and prove the converse proposition or propositions.

6. To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given rectilineal angle.