5. Solve $\frac{3x+4}{5} - \frac{7x-3}{2} = \frac{x-16}{4}$ (15)

6. Find the number, one-third of which, added to one-fourth, shall be equal to the number itself diminished by ten. (25)

7. Solve $\left\{\begin{array}{l} 2x+4y-3z=22 \\ 4x-2y+5z=18 \\ 6x+7y-z=63 \end{array}\right\}$ (25)

8. Give a quadratic equation, and show the difference between pure and affected quadratic equations. Write down the rule for solving each. (25)

9. There is a number consisting of 2 digits, which is equal to four times the sum of those digits; and if 9 be subtracted from twice the number, the digits will be inverted. What is the number. (25)

10. Find 2 numbers, the first of which is to the second as the second is to 16; and the sum of the squares equal to 225. (25)

Arithmetic.

1. Add together $\frac{2}{5}$, $\frac{4}{9}$, $\frac{3}{10}$, and $\frac{7}{18}$, and divide the result by $7\frac{5}{8}$. (10)

2. Reduce to their lowest terms $\frac{23205}{46436}$, and $\frac{25025}{35035}$. (10)

3. Simplify $\frac{3\frac{1}{16}-1\frac{5}{12}}{16\frac{2}{3}\text{ of }2\frac{7}{10}}$, and subtract $\frac{5}{12}$ from $\frac{7}{8}$. (15)

4. Divide 69.814 by ·00521, and by 52100. (15)

5. Find the square root of ·0069$\dot{4}$. Of what number is ·2 the square root? (20)

6. Find the simple interest on \$6250 for $7\frac{1}{2}$ years at $3\frac{1}{4}$ per cent. (20)

7. If 21 men take 8 days to dig 20 acres, how many acres will 16 men dig in 12 days? (20)

8. Explain the difference between interest and discount, and find the true present worth of £2,674. 6s. due 3 years hence at $4\frac{3}{5}$ per cent. (25)

9. The rate of a clock is ·075 per cent. too fast. How much will it gain in a week? (25)

10. I have 2 square lots of land, the larger of which contains 270 acres; the ratio of the smaller to the larger is as 5 to 6. What is the length of one side o the smaller? (25)

11. Three persons formed a partnership. A put in \$170 dollars for 9 months, B \$130 for 12 months, and C \$150 for 8 months. They gained \$286. What was the share of each? (25)

Geometry.

1. Define a square and a semi-circle, also parallel straight lines; and write out the first and third postulates. (10)

2. Define a rhomboid, a gnomon, the angle of a segment, reciprocal figures. (3+5+7+10). (25)

3. The angles which one straight line makes with another upon one side of it are either two right angles, or are together equal to two right angles.

4. Describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle?