SCHOOL WORK.

CLASS-ROOM.

ARITHMETICAL PROBLEMS.

1. (*a*) What number is the same multiple of 5, that 148,995 is of 9?

(*b*) If the divisor be eight times and the quotient seven times the remainder what is the dividend when the remainder is 452?

Ans. (*a*) 82,775; (*b*) 11,441,476.

2. A team of horses and a carriage cost $300; one of the horses and the carriage cost $205; the other horse and the carriage cost $215. Find the cost of each of the three. *Ans.* $85; $95; $120.

3. A farmer sold 12 bushels wheat, and 15 bushels barley, receiving for the latter two-thirds as much per bushel as for the former. He finds he received on the whole an average of 80$\frac{8}{3}$ cts. per bushel. Find the price of each per bushel.

Ans. 99 cts. and 66 cts.

4. A farmer exchanges sheep worth $5.75 per head with a neighbour for pigs worth $7.25 per head, without either gain or loss to either party. Find the least number of animals that exchanged hands. *Ans.* 52.

5. If a merchant were to sell a piece of cloth at 45 cts. per yard he would lose $2.75, but were he to sell it at 62$\frac{1}{2}$ cts. per yard he would gain 6.87\frac{1}{2}$. Find the number of yards in the piece and the cost per yard.

Ans. 55 yards; 50 cents.

6. A bankrupt can pay only 33$\frac{1}{3}$ cts. on $1, but by one of his creditors relinquishing his claim of $1,500, he can pay a dividend of 44$\frac{4}{9}$ cts. Find his liabilities. *Ans.* $6,000

7. A grocer finds that by increasing $\frac{2}{3}$ of the quantity of sugar in a barrel by $\frac{1}{3}$ of the quantity, and then the number of pounds so obtained by $\frac{1}{15}$ of itself, he has a new barrel of sugar containing 15 lbs. less than the first. Find the number of pounds in the first barrel.

Ans. 225 lbs.

8. Two merchants buy equal quantities of tea at the same price. One sells his at an advance of 37$\frac{1}{2}$ per cent. to a person from whom he can collect only 80 per cent. of his bill; the other sells his for cash at an advance of 15 per cent., and thus gains $1.25 more than the former. Find the value of the tea purchased by each. *Ans.* $25.

9. One man loaned another $125 at 5 per cent. per annum, simple interest, and agreed to let him have the use of it until the interest amounted to the principal. When should the money-lender get the money?

Ans. 20 years.

10. The length of a postage stamp is to its width as 5 : 4, and it costs $1,044.48 to cover with one cent stamps the walls of a room 17 ft. 6 in. long, 12 ft. 6 in. wide, and 10 ft. 6 in. high, allowing for three windows, each 5 ft. 6 in. by 4 ft., and three doors, each 6 ft. by 3 ft. Find the dimensions of a stamp.

Ans. $\frac{1}{8}$ in. x $\frac{3}{4}$ in.

EDUCATION DEPARTMENT, ONTARIO.

MIDSUMMER EXAMINATIONS, 1888.

Third-Class Teachers.

ENGLISH GRAMMAR.

Examiners: J. F. White, J. E. Hodgson, M.A.

NOTE. — Seven questions count a full paper; but of these Nos. 3, 4, 7 and 10 must form four.

1. (*a*) State and illustrate the several ways of indicating number and gender in nouns.

(*b*) Give, with explanations, instances of nouns with (1) plural forms construed as singular, (2) two plurals with different meanings, (3) no plural form.

2. (*a*) How do you account for the two modes of comparing adjectives? Compare, when possible, *pretty*, *probable*, *historical*, *first*, *more*.

(*b*) Explain clearly what is indicated by each of the degrees.

3. Complete the following sentences, using the present or the past tense of the verb "be." Explain in each case the principle of agreement: Two hundred dollars —— not