SCHOOL WORK.

PUBLIC SCHOOL LEAVING ARITHMETIC.

BY P. S. HEAD MASTER.

1. A man invests the present worth of $2,662.40, due 8 months hence at 6 per cent. per annum, in bank stock at 95½ (brokerage ½) paying 4½ per cent. yearly dividends. Find the yearly income.

ANS $120.

2. I sell out $6,000 stock in the 6 per cent at 108, and invest the proceeds in 4½ per cent. stock at 72. Do I change my income, and how much?

ANS. Increase it $45.

3. I invest $10,175 in Bank of Montreal stock at 203, brokerage ½, paying 8 per cent. yearly dividends, and $4,950 in Bank of Toronto stock at 197½, brokerage ½, paying 7½ per cent. yearly dividends. Find my total income.

ANS. $587.50.

4. A and B invest capital in the proportion of 5 to 9. At the end of 5 months A withdraws 25 per cent. of his capital, and at the end of 6 months B withdraws 33⅓ per cent. of his. If their profits for the year are $3,051, divide it fairly between them.

ANS. A, $1,107; B, $1,944.

5. $159 due in nine months, when money is worth 8 per cent. per annum, is invested in Ontario Bank stock at 85, paying 4 per cent. per annum. Find the yearly income.

ANS. 7 1-17.

6. A man derives an income of $350 from an investment in the 3½ per cent. stock at 88; how much stock does he own, and how much is it worth?

ANS. $10,000 stock; value $8,800.

7. Find the change in income made by transferring

(1) $5 000 from the 4 per cents. at 84 to the 3½ per cents. at 70.

ANS. $10 gain.

(2) $12,750 from the 5 per cents. at 80 to the 5⅔ per cents. at 85.

ANS. $42.50 gain.

(3) $4,275 from the 4 per cents. at 80 to the 5½ per cents. at 99.

ANS. $19 gain.

(4) $2,500 from the 5 1-5 per cents. at 114⅛ to the 5 per cents. at 94⅞; brokerage ⅛ each way.

ANS. $20 gain.

(5) $3,600 from the 4 per cents. at 85 to the 5 per cents. at 102.

ANS. $6 gain.

8. A man has left to him $2,500. He invests one-fourth of it in the 6 per cents. at 112½, one-third of it in the 4½ per cents. at 80, and the remainder in the 3 per cents. at 75. Find his income.

ANS. $121.87½.

9. I invest $27,225 in the 3 per cents. at 90⅝, and when they have risen to 91⅛ I sell out and invest in the 3½ per cents. at 97⅜. What is the change in my income (brokerage ⅛)?

ANS. $80 increase.

10. I invest $25,500 in the 4 per cents. at 85, and when they have risen to 90 sell out and invest the proceeds in the 4½ per cents. at 108; find the change in my income.

ANS. $75 loss.

ENTRANCE ARITHMETIC.

1. Forty pounds of tea and sixty pounds of coffee cost $43; a pound of coffee costing twenty cents less than