

For W. T. McKENZIE.—(1) A beam, A B, 10 feet long and weighing 56 pounds balances about a point 3 feet from A. When a weight is placed at B, the beam balances about a point 1.4 feet from B. Find the weight.

Ans.—The weight of the beam may be considered to be at its centre of gravity 7 feet from B. Then we have at B x pounds, and 7 feet from it 56 pounds. These two weights balance 1.4 feet from B, or 5.6 feet from the centre of gravity of the 56 pounds.

$$\text{Then } 66 \times 5.6 = 1.4 \times x.$$

$$x = 224.$$

M. F. F.—Please solve the following in the columns of the REVIEW if you have space. Hamblin Smith's Arithmetic:

Page 214, Example ex. 44:

Stock sells at $107\frac{1}{4}$.

Brokerage, $\frac{1}{4}$.

Therefore he invests \$108 to obtain \$100 stock.

Income from investing \$108 = \$6.

Again, second stock sells at \$99.

Income from \$99 = \$5.

$$\$1 = \$\frac{5}{99}.$$

$$\text{Invests } \$108 \times 2 = \$216. \quad \text{Income from } \$216 = \frac{\$5 \times 216}{99}$$

$$= \$10\frac{1}{4}.$$

$$\text{Total income} = \$6 + \$10\frac{1}{4} = \$16\frac{1}{4}.$$

$$\text{Sum invested for income of } \$16\frac{1}{4} = \$108 + \$216 = \$324$$

$$\text{" " " } \$1 = \frac{\$324}{16\frac{1}{4}}$$

$$\text{" " " } \$1674 = \frac{\$324 \times \$1674}{16\frac{1}{4}} =$$

$$\frac{\$324 \times \$1674}{1} \times \frac{11}{186} = \$32076.$$

Whole investment = \$32076.

But investments were made as 1 : 2.

$$\therefore \text{sum invested in U. S } 6\text{'s} = \frac{\$32076}{3} = \$10692 \quad \text{Ans.}$$

$$\text{" " U. S. } 5\text{'s} = \$10692 \times 2 = \$21384$$

M. F. F.—Please solve the following in the columns of the REVIEW if you have space. Hamblin Smith's Arithmetic:

Page 214, Example ex. 46:

Invest in stock at \$92.

Sell at \$85.

Lose \$7.

Re-invest \$85 at 5%

Income on \$100 = \$5.

$$\$1 = \$\frac{5}{100}.$$

$$\$85 = \frac{\$5 \times \$85}{100} = \$4\frac{1}{4}.$$

1st stock gave 3% interest.

$$\therefore \text{sum gained each yr.} = \$4\frac{1}{4} - \$3 = \$1\frac{1}{4}.$$

Lost \$7.

$$\therefore \text{No. of years} = \frac{7}{1\frac{1}{4}} = 5\frac{1}{2} \text{ years.}$$

SCHOOL AND COLLEGE.

Miss Carrie Everitt, lately of the St. Stephen staff of teachers, has been supplying in the model school, Fredericton.

Mr. Geo. A. Inch is engaged in teaching in the normal school, Fredericton.

The attendance at the Milltown high school has increased to such an extent that an assistant has been engaged.

Miss Ella B. Connell and Katie Buckley, of Nos. 2 and 3, Simonds, St. John County, have each been adding to their school apparatus by means of entertainments.

Miss Millie McCann, teacher at Greenock, Charlotte Co., has by means of a school concert greatly improved her school outfit.

J. G. A. Belyea, A. B., has been appointed principal of the Petitcodiac superior school.

Much sickness has prevailed among teachers this term, and many substitutes have been required.

The inspectors report a very hard winter in which to do their work. Storm upon storm, attended with high winds and cold weather, have rendered the country roads impassable for days at a time.

More than the usual amount of scarlet fever has prevailed this winter. It has interfered very seriously with the attendance in St. John city schools.

The North American station of the London University is at Halifax, Nova Scotia. Candidates for matriculation examination must send in their applications to the Superintendent of Education at Halifax according to the regulations of the university before first day of May next, we are informed.

The teachers of Charlottetown, P.E.I., are looking forward to the approaching session of the summer school of science, to be held in that city next July, and are holding weekly meetings to discuss psychology and physiology. They will thus be enabled to profit more from the instruction given in these subjects at the school. If the teachers in other localities are doing any preparatory work for the summer school it would be well to intimate it through the REVIEW. The knowledge that some are preparing would incite others to similar work.

Mr. I. M. Longley, B. A. so well known in the eastern counties as a most judicious and excellent teacher, is now in charge of Digby Academy. He centres around himself and the academy the interest of his pupils and their parents, thereby making his work easy and pleasant. Recently his pupils resolved to place a piano in their fine assembly hall. They are paying for it from the proceeds of concerts they hold for that purpose. The concert of February the 15th was particularly successful, graceful calisthenic exercises forming a prominent feature. Inspector Morse, Mr. Letteney,