AVERAGE OF A/CS.

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When one person owes another several debts, payable at different times, the rule determining the just time for a single payment of the whole, is called an average.

Rule 1. Multiply each debt by the time that must elapse before it will become due. (2ndly) Divide the sum of the products thus obtained, by the sum of the debts, and the quotient will be the time.

Rule 2. (1.) Multiply each debt, except the one that is payable earliest, by the difference between its time, and the time for that one. (2.) divide the sum of the products by the sum of the debts, and add the quotient to the time for the first debt.

Exam. 1. If a person owe another $300, payable 4 m/s ; $500 payable 6 m/s, and $400 payable $10\frac{1}{2}$ m/s, at what time may the whole be paid without loss to either person ? Here by Rule 1. $300 \times 4 + 500 \times 6 + 400 \times 10\frac{1}{2} = 8400$, and $300 + 500 + 400 = 1200$, then $8400 \div 1200 = 7$ m/s the time required.

By Rule 2. Taking 4 months from 6 and from $10\frac{1}{2}$ we get 2 and $6\frac{1}{2}$. Then $500 \times 2 + 400 \times 6\frac{1}{2} = 3600$, and $3600 \div 1200 = 3$, lastly $3 + 4 = 7$, the time required.

Exam. 2. One dealer buys goods from another on credit as under, from what day of the month may the whole debt be regarded as commencing ? March 2, $80.00 ; March 7, $50.00 ; March 17, $100.00; March 20, $60.00 ; March 26, $25.00 ; March 30, $45.00.

According to Rule 2, we multiply 50 by 5 $(7 - 2)$ 100 by 15 $(17 - 2)$ 60 by 18 $(20 - 2)$ 25 by 24 $(26 - 2)$ and 45 by 28 $(30 - 2)$. The products 250, 1500, 1080, 600, 1260 ; the sum of which is 4690, while the sum of the debts is $360, dividing 4690 by 360, we get 13 ; adding this to the first date 2, we find the debt $360.00 may be regarded as contracted on the 15th March.