Answer to questions. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans.

1 Define factor, square root, tax, interest, commission.

2 A tract of land is 423 rods long and 324 rods wide.
   a Find the cost of the land at $43 per acre.
   b Find the cost of fencing the same at 40 cents per rod.

3 Find the cost of three loads of coal weighing respectively 3580 lb. 3065 lb and 4230 lb, at $6.20 per ton.

4 Find the simple interest on $632 from Dec. 20, 1906 to June 10, 1907, at 5½%.

5 Copy and add:

\[
\begin{array}{cccc}
3936 & 4396 & 5536 & 5823 \\
3964 & 3878 & 3878 & 3689 \\
3892 & 3978 & 3856 & 3284 \\
3689 & 3348 & 3926 & 3965 \\
\end{array}
\]

6 Find the bank discount on a note of $4375.50 for 90 days, with interest at 5%, discounted at 6% 30 days after date.

7 A grocer buys 50 bushels of potatoes at 60 cents a bushel and retails them at 20 cents a peck; find his whole gain and his gain per cent.

8 The total assessed valuation of a certain city was $65,489,000; the total amount to be raised by tax was $329,211.50. Find the amount of tax to be paid on a piece of property valued at $12,395.50.

9 Give in inches the length of the meter. In the metric system what is (a) the unit of weight, (b) the unit of capacity? Find the sum of 37 dm, 23 cm, 18 Dm, 2 Km.

10 The longitude of Cincinnati is $84° 26' \text{ west}$ and that of Berlin is $13° 23' 45' \text{ east}$; what is the difference in time?

11 Find the cost of 36 shares of N. Y. C. R. R. stock at 123½, brokerage ½%.

12 Find the square root of 170,569.