1. A merchant failing in business has assets as follows : real estate, $4680; furniture, $1240; cash, $450. Accounts valued at $1380. Mr. Brown holds a mortgage of $1500 on the real estate. He owes Mr. Smith $1200, and all other creditors $11,840. The assignee receives 5% on the assets, and other expenses amount to $460. What sum will Mr. Smith receive from the estate?

2. A jobber is offered by one manufacturer 40% discount from the list price, and by another $33\frac{1}{3}$% and 10% off. If the list price is the same in both cases, which is the better offer? Which is the greater discount, — 30 and 10 and 5, or 40 and 5, and how much would be saved in buying $300 worth of goods of the cheaper party? (See Manual, p. 154.)

3. A merchant paid $3250 for wool, and sold it at 18% above cost, taking payment in cotton cloth, which he sold at a loss of 15%. Did he gain or lose, and how much?

4. I sold my horse and carriage, gaining $150 or 25% of their cost. The horse cost $62\frac{1}{2}$% less than the carriage. What was the cost of each?

5. A cylindrical tank is 4 ft. 6 in. high and 18 in. in diameter. How many gallons will it hold?

6. A vessel that sails 12 knots an hour would sail at the same rate how many common miles in 5 days?

7. The operatives of a certain factory who work $9\frac{1}{4}$ hours a day refuse to submit to a reduction in wages of 10%, but are willing to submit to a corresponding extension of time, provided they can have the same daily wages. If this plan is carried out, how many hours a day will the operatives be required to work?

8. What is the amount of $1200 for 12 yr. 8 mo., interest compounded annually at $4\frac{1}{2}$%? (See Appendix.) How much if the interest is $3\frac{1}{2}$%? 6%?

9. Find the number of board feet in 4 planks, each $2\frac{1}{4}$ in. thick, $9\frac{1}{2}$ ft. long, 12 in. wide at one end and 9 in. wide at the other.

10. At what premium should I purchase a 10% $100 bond (interest payable semi-annually) having 4 years to run, so that my money invested will yield me 4% during that time?