

daily use. The pencil is only to record combinations too large to be carried in the mind. The pupil should be so taught.—*School Education.*

THE PROTESTANT CENTRAL BOARD OF EXAMINERS.

MODEL SCHOOL AND ACADEMY DIPLOMAS.

Arithmetic.— $1\frac{1}{2}$ hours.

1. I sold goods at a profit of 20%. Had they cost me \$250 more, and had I sold them at the same price, I should have lost 20%. Find the cost price.

2. Capital originally invested so as to yield an annual income of \$22,500, at the rate of 9%, is reinvested at 10%, and then divided among three persons in shares which are as 4, 7 and 9. What is the yearly income of each.

3. A person sets out at noon on a journey of 20 miles, walking at the rate of $3\frac{1}{2}$ miles an hour. On the way he looked at his watch, and found the time then passed from noon to be equal to $\frac{2}{3}$ of the time remaining till midnight. How far had he then to walk?

4. If \$10 be allowed as the true discount off a debt of \$60 due in 6 months, and at the same rate of interest \$3 be allowed off a debt of \$33, for how long a period had the latter to run?

5. A spherical ball of lead, 3 inches in diameter, is melted and recast into three spherical balls; the diameters of two of these are $1\frac{1}{2}$ in. and 2 in. respectively, determine the diameter of the other ball.

6. A cylindrical roller is 44 inches in circumference, how far from the end must I make the section to cut off 3 cub. ft. from the roller.

7. It is noticed that the water in a reservoir, 38 ft. long and 26 ft. wide, which is known to leak, sinks one inch in 12 hrs.; a pipe discharging 60 gallons per minute will fill the reservoir in 45 hrs., allowing for the leakage; assuming a cubic foot of water to contain 625 gallons, find within an inch the depth of the reservoir.

FOR ACADEMY CANDIDATES ONLY.

8. The price of gold is \$15.57 $\frac{1}{2}$ per oz., a composition of gold and silver weighing 18 lbs. is worth \$2549.40, but if the proportions of gold and silver were interchanged, it would be worth only \$1036.20. Find the proportion of gold and silver in the composition and the price of silver per oz.

English Grammar and Composition.—Two hours.

1. The mountaineer cast glance of *pride*
 Along Ben-ledi's *living* side
 Then fixed his eye and sable brow
Full on Fitz-James—(said) "*How sayest thou now?*"
 These are Clan-Alpine's *warriors* true;
 And, *Saxon*—I am Roderick Dhu."