

Review Questions—Grade VIII.

By G. K. BUTLER.

1. If $3\frac{1}{2}$ years ago a man put \$460 out at simple interest, and now finds he has in all \$532.45; what rate per cent has he been getting? Answer, $4\frac{1}{2}\%$.
2. A note of \$250 was dated Nov. 10th at 3 months, and discounted Nov. 23rd at 6 per cent; find the proceeds. Answer, \$246.63.
3. A merchant imported 600 kilograms of drugs which cost him \$2.50 a kilogram, the duty was 50 per cent; at what price per oz., apoth., must he sell them in order to gain 40 per cent? Answer, 16c.
4. How long a ladder placed 16 feet from wall at its foot will reach a window 40 ft. above ground? Answer, $43 + \text{ft.}$
5. The base of a triangle is 428 yards, the height 225 yards; find area in acres, sq. rds., sq. yds., sq. ft., sq. in. Answer, 9 ac., 151 rds., 22 yds., 2 ft., 36 in.
6. The area of a circle is 276.58 square feet. Find the radius. Answer, $9.38 + \text{ft.}$
7. How many gallons can be put in a cylinder if the inside radius is 6 inches, and the height 24 inches? Answer, 2714.34 gals.
8. Find in gallons the volume of a cylinder whose diameter is 10 decimeters, and the height 20 decimeters. Answer, $345.73 + \text{gallons.}$
9. An article cost \$80, which was 80 per cent of selling price, which in its turn was 20 per cent of the marked price. Find gain per cent and discount per cent. Answer, gain, 25 per cent; discount, 20 per cent.
10. There are two concentric circles, the area of the outer is 78.54 sq. ft., the area of the ring between the circumferences is 58.905 sq. ft. Find radius of inner circle. Answer, 2.5 ft.

The report of the Superintendent of Education for British Columbia, Alex. Robinson, B. A., for year ending June 30th, 1907, shows a total enrolment of 30,039 pupils, with a percentage of attendance of 66.63. The number of boys was 15,347, and of girls 14,692; but the boys in the high schools numbered only 532 against 823 girls. Of the leading educationists in British Columbia, two, Supt. Robinson and Inspector David Wilson, are natives of New Brunswick; the three remaining inspectors, A. C. Stewart, J. D. Gillies and J. S. Gordon, are natives of P. E. Island.

Nature Study Class.—IV.

By W. H. MOORE.

Our failure to meet in April was due to a misunderstanding rather than a lack of interest in our nature study. Many of us have been on the alert, however, and are keeping a sharp lookout for the arrival of the birds from the south; for the appearance of early butterflies, moths, beetles and other insects; for the first flowers of spring. All will find it of great interest to mark down the dates when any of the above-named wild neighbours were first noticed. Not only for this season will such dates be of value, but next year, and for years to come, when looking over our notes and comparing one season with another, we find we have species recorded for one year that may be off our books entirely for other years. How the children enjoy picking the first violets, the first dandelions or trilliums! How many are acquainted with the fact that a great many of our plants are dependent upon insects to perfect their seeds? How many know whether our weeds are native to Canada or are introduced? We might apply the same question to insects, and find if our insect pests are native or introduced. It is surprising to know that insect and weed pests of Canada, and especially those of the maritime provinces, are not native.

There are many native Canadian mammals, birds, insects and plants that we may profitably study. One of these is the red-breasted nuthatch (*Sitta canadensis*), and at this time of year we find this interesting little bird busily engaged in family affairs. Its home, or, to be more exact, its nest, is placed in some dead tree, generally a conifer or white maple, in a cavity excavated by the birds themselves. It may be that the birds have been engaged for months in the preparation and construction of the nest; and in one instance that came to my notice they had laboured for two months, and even then had to give up the site, as they came upon knots within the rotten wood that they could not remove. Both sexes engaged in the work and labor alternately until the cavity is about ready for the nest material. While the female is putting the finishing touches to the inside of the house, the male begins the collecting of fine shreds of bark and other material for the nest proper. Then when it comes to finishing the lining of the nest the female collects fine hair and fur, the discarded winter coats of the hares and squirrels, and felts them into a beautiful soft blanket, to serve as a cushion upon