

6. State the Rule for the division of one decimal by another. Divide (1) 7792.2 by .37, (2) .0077922 by .370; verify each result by vulgar fractions.

PAPER II.

1. Define Interest, Simple and Compound. How does Interest differ from Discount? Find (1) the int. on \$7300 at $3\frac{1}{2}$ per cent. for 120 days, (2) the discount on £3204. 14s. 1d. at $3\frac{1}{2}$ per cent., simp. int. for $2\frac{1}{2}$ yrs.

2. A house built for \$2656 is sold for \$3320, find the gain per cent. If it had been built for \$3320 and sold for \$2656, find the loss per cent. Why do the rates differ?

3. Define a square. Find (1) the sq. root of 930372004, (2) the cub. root of 16777216, (3) the perimeter of a square whose surface is 2533 sq. ft., 64 sq. in.

4. Multiply 365 separately by 5, by 20, and by 300, and add the products together. Point out how the ordinary method of multiplying 365 by 325 agrees step by step with the above.

5. Define prime and composite numbers. Resolve 22932 into its prime factors.

6. A person left Toronto for Guelph, at 9 A. M., and travelled the first 20 miles by rail, at the rate of $22\frac{1}{2}$ miles an hour; he then walked the remaining 32 miles at $\frac{1}{2}$ of that rate. At what o'clock did he arrive?

PAPER III.

1. A and B fire at targets, having 55 cartridges each. A fires twice in 3 minutes, and B three times in 5 minutes; how many times will B have to fire after A has finished?

2. (1) Convert $\frac{17}{20 \times 8}$ into a decimal; why is the result a terminating, and not a recurring decimal? (2) Express 3s. 0 $\frac{1}{2}$ d. as the decimal of £5. (3) Which is greater, $\frac{3}{8}$ of a guinea, or $\frac{3}{8}$ of £1? (4) By how much?

3. What sum of money will amount to \$552.50 in 15 mo. at 5 per cent. simp. int.?

4. A room whose height is 11 ft., and length twice its breadth, takes 148 yds. of paper 2 ft. wide for its four walls; how much carpet will it require?

5. Two clocks strike 9 together on Tuesday Morning.