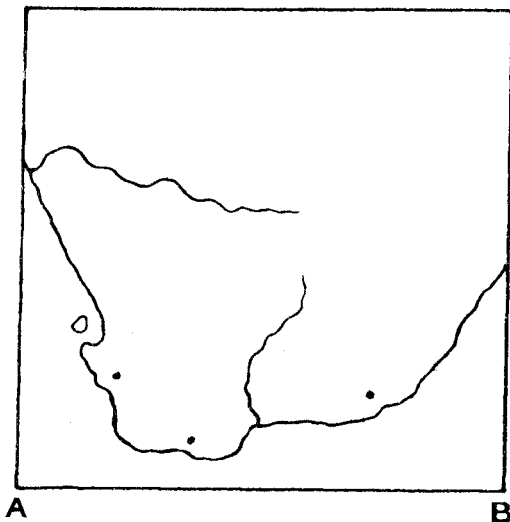


Instrumental Drawing.—For Junior National Scholarships. Time allowed: Three-quarters of an hour.

N.B.—Three questions only are to be attempted.

[CAUTION.—No credit whatever will be given for answers which appear to be the result of experiment—i.e. those in which the lines used to obtain the required result are not clearly shown.]

1. Make a proportional copy of the given map, enlarging the line A B to the given line X Y.

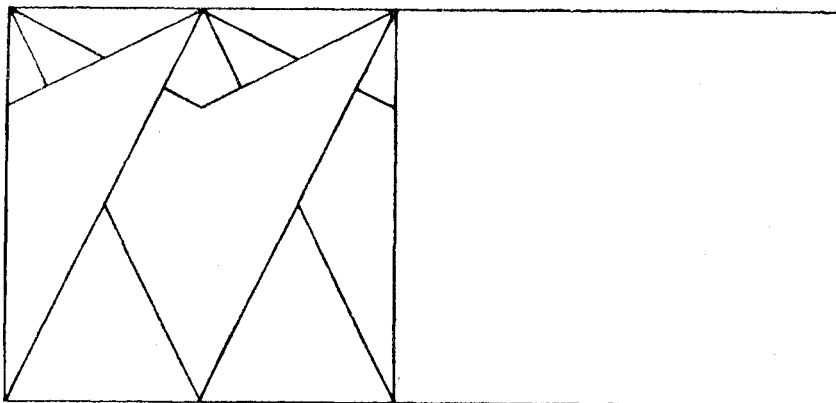


X

Y

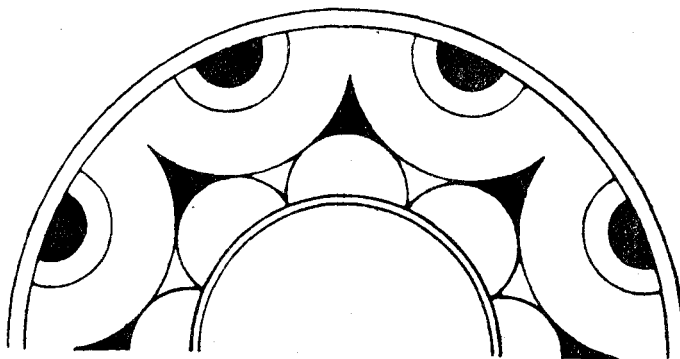
2. Draw a square of 2 inches side, and without it draw another square having its sides 1 inch from and parallel to the sides of the smaller square.

3. The given pattern is based on the square; copy it the same size and repeat as much again, showing your construction lines.



4. Draw an equilateral triangle of $1\frac{1}{2}$ inch side, and on its sides construct respectively a rectangle with altitude $\frac{3}{4}$ inch, a hexagon, and a rhombus with an angle of 60° .

5. Make a drawing (which must be larger than the diagram) of the given pattern. The construction lines must be shown. You need not *finish* more than one half of your drawing.



6. Find by construction the sixteenth part of a line $3\frac{1}{4}$ inches long.

Approximate Cost of Paper.—Preparation not given; printing (3,925 copies), £51 18s.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1904.