

PROBLEM V.

To find the side x of a square x^2 , whose area shall be equivalent to that of a given square a^2 less by the two-sevenths of it.

$$x = \sqrt{\frac{5}{7} a^2} \quad \text{N. S.}$$

$$= \sqrt{\frac{5}{7} a} \times a \quad \text{G. S.}$$

PROBLEM VI.

To find the side x of a square x^2 , whose area shall be to that of a given square a^2 , in the ratio of $m : n$.

$$x = \sqrt{\frac{m}{n} a^2} \quad \text{N. S.}$$

$$= \sqrt{\frac{m}{n} a} \times a$$

$$= \sqrt{y a} \quad \text{G. S. (See Intro. IV., Ex. 5.)}$$

PROBLEM VII.

To find the side x of a square x^2 , equivalent to a given rectangle ab .

$$x = \sqrt{a b} \quad \text{N. and G. S.}$$

PROBLEM VIII.

To find the side x of a square x^2 , equivalent to a given triangle $\frac{a h}{2}$

$$x = \sqrt{\frac{a h}{2}} \quad \text{N. S.}$$

$$= \sqrt{a \times \frac{h}{2}} \quad \text{G. S.}$$

PROBLEM IX.

To find the side x of a square x^2 , equivalent to a given trapezoid $\frac{p(m+n)}{2}$