

Answer on Question#54570 – Math – Algebra

$$a = \frac{n(n - P)}{P - 1}, P \neq 1$$

$$a - \text{arbitrary}, P = n = 1$$

Question

Rearrange the formula to make a the subject, please.

$$P = \frac{n^2 + a}{n + a}$$

Solution

$$P * (n + a) = \frac{n^2 + a}{n + a} * (n + a)$$

$$P(n + a) = n^2 + a$$

$$Pn + Pa = n^2 + a$$

$$Pn + Pa - a - Pn = n^2 + a - a - Pn$$

$$Pa - a = n^2 - Pn$$

$$a(P - 1) = n(n - P)$$

$$a = \frac{n(n - P)}{P - 1}, P \neq 1$$

Note, that in case of $P = 1$, according to initial equation n should be equal to 1.

$$n + a = n^2 + a$$

$$n = n^2$$

$$n = 1$$

If $n = 1$, then a can be arbitrary.