

ANSWER on Question #77623 – Math – Algebra

QUESTION

Solve for y in the equation

(1)

$$C = 5x^2 + y$$

Or

(2)

$$C = 5x^{2+y}$$

SOLUTION

(1)

$$C = 5x^2 + y \rightarrow C - 5x^2 = 5x^2 - 5x^2 + y \rightarrow C - 5x^2 = 0 + y \rightarrow$$

$$\boxed{y = C - 5x^2}$$

(2)

$$C = 5x^{2+y} \rightarrow \frac{C}{5} = x^{2+y} \rightarrow \ln\left(\frac{C}{5}\right) = (2+y) \cdot \ln x \rightarrow 2+y = \frac{\ln\left(\frac{C}{5}\right)}{\ln x} \rightarrow$$

$$\boxed{y = \frac{\ln\left(\frac{C}{5}\right)}{\ln x} - 2}$$

ANSWER:

(1)

$$y = C - 5x^2$$

(2)

$$y = \frac{\ln\left(\frac{C}{5}\right)}{\ln x} - 2$$