

Answer on Question #50545 – Math – Differential Calculus | Equations

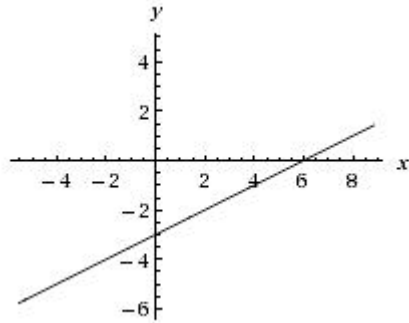
Task:

if $x-2y=6$, find the greatest value of y

Solution:

It follows $y = \frac{x-6}{2}$ from equality $x - 2y = 6$.

Graph of y as function of x is shown in the following figure:



This is a linear function. Because the domain of this function is not mentioned in the question, then assume that the function varies from $-\infty$ to $+\infty$. Therefore, the greatest value of y is ∞ .

If x is defined over $[A; B]$, then the greatest value of y will be $\frac{B-6}{2}$.

If y is defined over $[C; D]$, then the greatest value of y will be D .