

Formula for gravitational acceleration (in x):

$$G = 6.674 \times 10^{-11}$$
$$M = 1.989 \times 10^{30}$$

$$g_x = \frac{-GM_x}{(x^2 + y^2)^{3/2}}$$

@ $x = -1.086 \times 10^{11}$ and $y = -1.057 \times 10^{11}$

$$g_x = \frac{-[(6.674 \times 10^{-11})(1.989 \times 10^{30})(-1.086 \times 10^{11})]}{[(-1.086 \times 10^{11})^2 + (-1.057 \times 10^{11})^2]^{3/2}}$$

$$g_x = \frac{-[-((6.674 \times 1.989 \times 1.086)(10^{(-11+30+11)}))]}{[(-1.086)^2 \times 10^{22} + (-1.057)^2 \times 10^{22}]^{3/2}}$$

$$g_x = \frac{(6.674 \times 1.989 \times 1.086)(10^{30})}{[(-1.086)^2 + (-1.057)^2]^{3/2} (10^{22 \cdot 3/2})}$$

solve

$$g_x = \frac{(14.42)}{(3.480)} \times \frac{(10^{30})}{(10^{33})}$$

$$g_x = 4.142 \times 10^{-3}$$