

Business Calculus
Mett

Math 121
DUE: January 20, 2003 (Walker 225)

NAME: _____

1. (a) i. 0
ii. $x = 0, -2$
iii. 0
(b) i. 0
ii. $x < 0$
iii. 0
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2. (a) $AB = 6\sqrt{2}, BC = 2\sqrt{5} = AC$
(b) $M = (2, 1)$
(c) $h = \sqrt{2}$
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3. (a) Graph should be a parabola opening up with vertex at $(3, 0)$ and y-intercept at $(0, 9)$. The point $(7, 15)$ does not lie on the graph because $(3 - 7)^2 \neq 15$.
(b) $x = 5 \pm \sqrt{14} \implies (1.258342613, 3.033370454)$ and $(8.741657387, 32.96662955)$
(c) $x = 647.2611618$