## MTH 111, Math. for the Architects, Quiz Nine Spring 2014

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QUESTION 1. Given the two points: $A=(1,6)$ and $B=(-4,3)$. Find a point $C$ on $y=2$ such that $|A C|+|C B|$ is minimum.

QUESTION 2. Let $f(x)=-3 x^{4}+24 x^{2}+1$. Find the critical values of $f(x)$. Use the second derivative test to check for local min. and max. values. Also use the second derivative test to find inflection points, the x-intervals where the curve of $f(x)$ concave up and concave down.

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