# Global Extrema and Optimization Math 102 Section 107 

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## Warmup - from WeBWork

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\text { Let } f(x)=-x^{2}+3 x \text {. }
$$

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Q1. The global minimum of $f(x)$ on the interval $[1,3]$ occurs at $x=$
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B. 1.5
C. 3

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Let $f(x)=-x^{2}+3 x$.
Q1. The global minimum of $f(x)$ on the interval $[1,3]$ occurs at $x=$
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C. 3

Q2. The global maximum of $f(x)$ on the interval $[1,3]$ occurs at $x=$
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B. 1.5
C. 3

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Let $f(x)=-x^{2}+3 x$.
Q1. The global minimum of $f(x)$ on the interval $[1,3]$ occurs at $x=$
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Q2. The global maximum of $f(x)$ on the interval $[1,3]$ occurs at $x=$
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## Another example

Let $f(x)=x^{3}-6 x$, considered on the interval $[-1,7]$.

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Let $f(x)=x^{3}-6 x$, considered on the interval $[-1,7]$.
Q3. The global maximum occurs at $x=$
A. -1
B. 0
C. 4
D. 7

Q4. The global minimum occurs at $x=$
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