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September 16, 2010

### Question

### Example

What does the Squeeze theorem say?

### Finding limits

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Find the following limits

•  $\lim_{x\to 1} e^{x^3-x}$ 

#### Finding limits

- $\lim_{x \to 1} e^{x^3 x}$   $\lim_{r \to 9} \frac{\sqrt{r}}{(r-9)^4}$

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- $\lim_{x\to\infty}(\sqrt{x^2+4x+1}-x)$

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- $\lim_{x\to\pi^-}\ln(\sin(x))$
- $\lim_{x\to\infty}(\sqrt{x^2+4x+1}-x)$
- $\lim_{x\to\infty} e^{x-x^2}$

### Example

Show that the following equation has a solution on (0,1)

$$e^{-x^2}=x.$$