Math 1A Midterm Practice 9/19/18

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Question 1

Evaluate the following quantities

$$\arccos\left(\cos\left(\frac{19\pi}{6}\right)\right)$$

$$\sin\left(\arctan x\right)$$

Question 2

Evaluate the following limit.
$$\lim_{x \to 0} e^{x^4 \sin(e^x + 1)}$$

Question 3

Compute the following limits.

$$\lim_{x \to 0^+} \left(\frac{e^x}{x} - \frac{e^x}{|x|} \right)$$

$$\lim_{x \to 0^-} \left(\frac{e^x}{x} - \frac{e^x}{|x|} \right)$$