Question: What is \( \lim_\limits{n \to \infty} \frac{n}{n+1} \) ?

Intelligent guess: As \( n \) gets bigger, \( n \) and \( n+1 \) "almost same" so \( \frac{n}{n+1} \) gets closer to 1

Final answer: 1

Math reasoning: \( \frac{n}{n+1} = \frac{(n+1) - 1}{n+1} \)

\[ = 1 - \frac{1}{n+1} \]

\[ \lim_\limits{n \to \infty} 1 - \frac{1}{n+1} = 1 \]

This makes everyone happy
**Wrong Way**

**Question:** Expand \((x-y)(x+y^2+7xy)\)

**Intelligent guess:** \((x-a)(x+a) = x^2-a^2\)

\[\sin 90^\circ = 1\]
\[\cos 90^\circ = 0\]
\[\sin^2 90 + \cos^2 90 = 1\]

**Just Plain Wrong**

\[(x+y)^2 = x^2 + y^2\]

**Final answer:** \(x^2 - yx + xy^2 - xy^2\)

**Final answer, 1 line!** \(= x^2 - y^4\)

**Math Reasoning:** Don't leave it blank, show work!
WRONGER WAY

Question: What is \((5 + 4) \times 3\)

Intelligent guess: \(5 \times 4 \rightarrow 3 \rightarrow 20 \rightarrow 5 + 12 \rightarrow 17\)

Final answer: \(27\) or \(17\)

Math reasoning:
The Intermediate Value Theorem states that continuous functions on real lines have images that are connected.

Don't hide your answer or the lack of it amidst grand words.