Calculus II - Monday, August 25, 2014 - Mr. Clontz
Fill in the circle for the correct answer for each of the following problems.

Name: _____ 9am / 10am

1. (10 points) Which of these is an example of propositions P, Q such that $P \Rightarrow Q$, but $Q \not\Rightarrow P$?

   ◯ P: "$x^3 = -8$" Q: "$x = -2$"

   ◯ P: "The hat is orange." Q: "The hat is blue."

   ◯ P: "$z = -4$" Q: "$z^2 = 16$"

   ◯ P: "The cat's fur is not black." Q: "The cat has white fur."

   ◯ None of the above.

2. (10 points) Determine whether the sequence $\left(\frac{n}{\sqrt{10+n}}\right)$ is convergent or divergent. If it is convergent, what does it converge to?

   ◯ The sequence converges to $\frac{1}{\sqrt{10}}$.

   ◯ The sequence converges to $\sqrt{n}$.

   ◯ The sequence converges to 1.

   ◯ The sequence diverges.

   ◯ None of the above.