

Name: _____

Section: _____

Math 10560, Quiz 7

March 28, 2017

- The Honor Code is in effect for this quiz. All work is to be your own.
- Please turn off all cellphones and electronic devices.
- Calculators are NOT allowed
- The quiz lasts for 10 min.

PLEASE MARK YOUR ANSWERS WITH AN X, not a circle!

1. (a) (b) (c) (d) (e)

2. (a) (b) (c) (d) (e)

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Multiple Choice

1.(2 pts.) Consider the sequence

$$a_n = \left(1 + \frac{\pi}{n}\right)^n$$

for $n \geq 1$. What can you say about the convergence/divergence of the sequence?

- (a) The sequence converges to π (b) The sequence converges to e
(c) The sequence converges to π^e (d) The sequence does not converge
(e) The sequence converges to e^π

2.(2 pts.) Determine if the following series is convergent or divergent. If the series converges, find its sum.

$$\sum_{n=2}^{\infty} \frac{(-1)^n 2^n}{5^{n+2}}.$$

- (a) $\frac{4}{175}$ (b) $\frac{4}{875}$ (c) $\frac{4}{375}$
(d) $\frac{4}{75}$ (e) The series diverges