**IB Math HL2: Exit Slip at Home: Name: \_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_**

1.

a) What is the divergence test? State it.

1. Prove “The divergence test”.
2. Can you use the divergence test to conclude that a series converges? Explain.
3. The following is a list of convergence tests that we have looked at so far. For each convergence test, briefly outline the type of series that suits each particular test and
4. Integral Test:
5. Direct Comparison Test:
6. Limit Comparison Test:
7. Alt. Series Test:

Determine if the following series converge or diverge. Justify your answer by showing all your work and name the test you use. Do not use the same test twice.

***List of Convergence Test: Divergent test, Direct comparison, Limit comparison, Integral test, and alternating series test.***

a)  b) 

c)  d) 

e) 