Answers to Week 9

1.

(a) Absolutely Convergent by Ratio Test
(b) Divergent by Test for Divergence
(c) Divergent by LCT with $\sum \frac{1}{n}$
(d) Convergent by AST (but not Absolutely by LCT with $\sum \frac{1}{n}$)
(e) Absolutely Convergent by Ratio Test
(f) Absolutely Convergent by Comparison or LCT to $\sum \frac{1}{n^{3/2}}$
(g) Convergent by AST (but not Absolutely by Comparison or LCT with $\sum \frac{1}{n}$)
(h) Absolutely Convergent by Comparison with $\sum \frac{1}{n^2}$
(i) Divergent by Ratio Test
(j) Divergent by Ratio Test
(k) Absolutely Convergent by Ratio Test