

1.

- (a) There are 3 classes: 1, 4 R, 5, 8 | 3, 6, 9 R($\lambda = 2$), 2, 7 T.
- (b) 1.4617 ± 0.7860
- (c) 0.1384
- (d) $\frac{77}{113}$
- (e) $\frac{2522}{5391}$
- (f) $\frac{21222}{204869}$
- (g) $\frac{223456969999}{1236591677160}$

2.

- (a) 0.1807
- (b) 104 ± 73.89
- (c) 0.4239
- (d) 0.6551

3.

- (a) 0.490472689 (needs higher accuracy)
- (b) 0.4728
- (c) 108.64 ± 88.54
- (d) 0.5868

4.

- (a) $a_n^{\text{part}} = \left(\frac{4n^2}{75} + \frac{4n}{250} - \frac{358}{1875} \right) \cdot n \cdot (-2)^n$
- (b) $A(-2)^n + B(1+i)^n + \bar{B}(1-i)^n + C \cdot n(1+i)^n + \bar{C} \cdot n(1-i)^n + a_n^{\text{part}}$
- (c) $(-2)^{n+1} + (3+2i)(1+i)^n + (3-2i)(1-i)^n + n(2-3i)(1+i)^n + n(2+3i)(1-i)^n + a_n^{\text{part}}$

5.

- (a) 729 ± 413.0
- (b) 0.2144
- (c) 2.041 ± 1.402

6.

- (a) 17.77 ± 15.49
- (b) 0.1617
- (c) 0.6154

2

7.

(a) 13.50 ± 10.82

(b) $\frac{1}{2}$

(c) 0.7551