

Math 219: Practice Exam Answers

Final 1

2. $9 \cdot 10^4 - 7 \cdot 8^4$

3. $\binom{10}{5} 5!$

5. (a) no (b) no (c) no

7. 2, 1

8. (a) $t(t-1)^4(t-2)$ (b) $t(t-1)^7(t-2)^2$

9. (a) K_6 (b) not possible (c) $L = \mathcal{P}(1, 2, 3)$, $A = \{\emptyset, \{1\}, \{3\}, \{1, 2, 3\}\}$ (d) not possible

10. $(A \wedge B) \vee C'$

Final 2

1. (a) $\binom{8}{3} 5!$ (b) $\binom{8}{3} 5! - 6!$ (c) $8^{14} + 7 \cdot 14 \cdot 8^{13}$

3. 17

4. 14

6. $t(t-1)^8 - t(t-1)^7$

7. $\frac{[(t-1)^4 + (t-1)][(t-1)^5 - (t-1)](t-2)(t-3)}{t}$

8. 4

11. (a) K_5 (b) not possible (c) a totally ordered set with 3 elements (d) same as (c)