

# BILL AND NATHAN RECORD LECTURE!!!!

BILL AND NATHAN RECORD LECTURE!!!

# About the Final

# About the Final

1. **When** Final is Friday May 17, 10:30-12:30.

# About the Final

1. **When** Final is Friday May 17, 10:30-12:30.
2. **Where** CSI 3117 (our usual classroom)

# About the Final

1. **When** Final is Friday May 17, 10:30-12:30.
2. **Where** CSI 3117 (our usual classroom)
3. **What You Can Bring** TWO sheets of 8.5× 11 paper, you can write whatever you want on both sides.

# About the Final

1. **When** Final is Friday May 17, 10:30-12:30.
2. **Where** CSI 3117 (our usual classroom)
3. **What You Can Bring** TWO sheets of 8.5× 11 paper, you can write whatever you want on both sides.
4. **What you Cannot Bring** A calculator or similar. You won't need it.

# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

1. Regular Languages. Equivalence of models, number-of-states, closure properties.



# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

1. Regular Languages. Equivalence of models, number-of-states, closure properties.
2. CFL. Languages that are CFL but not REG. CFL's in P. (NOTE: you will NOT be asked to put a CFL into Chomsky Normal Form, to much time.) Closure properties.

# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

1. Regular Languages. Equivalence of models, number-of-states, closure properties.
2. CFL. Languages that are CFL but not REG. CFL's in P. (NOTE: you will NOT be asked to put a CFL into Chomsky Normal Form, to much time.) Closure properties.
3. P, NP. Statement of Cook's Theorem (but not the proof). Reductions. Closure properties.

# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

1. Regular Languages. Equivalence of models, number-of-states, closure properties.
2. CFL. Languages that are CFL but not REG. CFL's in P. (NOTE: you will NOT be asked to put a CFL into Chomsky Normal Form, to much time.) Closure properties.
3. P, NP. Statement of Cook's Theorem (but not the proof). Reductions. Closure properties.
4. Decidable theories: WS1S. NOTE: No questions on  $(\mathbb{Q}, <)$ .

# Topics

I list topics below; however, note that some questions may span areas.

**Example** Consider the following problem: Given a DFA does it accept  $\Sigma^*$ . Is this in P?

1. Regular Languages. Equivalence of models, number-of-states, closure properties.
2. CFL. Languages that are CFL but not REG. CFL's in P. (NOTE: you will NOT be asked to put a CFL into Chomsky Normal Form, to much time.) Closure properties.
3. P, NP. Statement of Cook's Theorem (but not the proof). Reductions. Closure properties.
4. Decidable theories: WS1S. NOTE: No questions on  $(\mathbb{Q}, <)$ .
5. Undecidable: HALT is undecidable (not the proof), Hilbert's tenth problem and Diophantine sets.  $\Sigma_1$  sets.

# General Tip

# General Tip

1. The HWs are a good guide to what might be on the final

## General Tip

1. The HWs are a good guide to what might be on the final
2. While the exam is cumulative the EMPHASIS will be on P, NP, DEC, UNDEC.