

# Math 322

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Grades

- HW
  - AtHw. Q (Video, Participation)
  - Exams
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Weeks:

Monday:

- 10<sup>30</sup> AM Q & A, Homework

- AtHw Quiz Start Due Tues Night

- Video

- Participate

Q's

Wed

- 10<sup>30</sup> AM Q & A, Homework

- AtHw Quiz

Due Thurs Night

text / email  
call

Fri

- 10<sup>30</sup> AM Q & A, Homework

- AtHw Quiz

Due Monday Night

# What's Due?

① Read Boolean Alg pdf on 7b

② Skat HW

Section 1 (5ac, 15, 17, 21, 31, 35, 37, 38)

Due  
April 10th

$F(x, y, z)$  "truth table" Boolean logic

- is and  $\wedge$
- + is or  $\vee$
- is not  $\neg$

→ bit table!

$x$	$y$	$z$	$\bar{x}$	$\bar{x} \cdot y$	$(\neg x) \wedge y$
1	1	1	0	0	F
1	1	0	0	0	F
1	0	1	0	0	F
1	0	0	0	0	F
0	1	1	1	1	T
0	1	0	1	1	T
0	0	1	1	0	F
0	0	0	1	0	F

Bit tables for  $left = right$

left	right
0	0
1	1
0	0
0	0
1	1

Same!

(KS)

Truth table for  $left \equiv right$

Discrete

show	$left \leftrightarrow right$
T	T
F	F
T	T
F	F

tautology

Idempotent law  $X + X = X$

X	$X + X$
1	1
0	0

Same!

$X + X = X$

X	$X \cdot X$
1	1
0	0

Same

$X \cdot X = X$

Distrib

$X \cdot (y + z) = (X \cdot y) + (X \cdot z)$

X	y	z	$y + z$	$X \cdot (y + z)$
1	1	1	1	1
1	0	1	1	1
1	0	0	0	0
0	1	1	1	0
0	0	1	1	0
0	0	0	0	0

X	y	z	$(X \cdot y) + (X \cdot z)$
1	1	1	1
1	0	1	1
1	0	0	0
0	1	1	0
0	0	1	0
0	0	0	0

Same!

