

EM&CP Blk Thursday, March 31, 2022

pg 277
T/F

$$a \vee (b \wedge c) = (a \vee b) \wedge (a \vee c)$$

$$a \wedge (b \vee c) = (a \wedge b) \vee (a \wedge c)$$

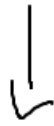
OR

p	q	p v q
T	T	T
T	F	T
F	T	T
F	F	F

(num) = input(" "

<enter">

while



input

pg 278 (#2)

not(p and Q)

$\sim(p \wedge q)$

p	q	$p \wedge q$	$\sim(p \wedge q)$
T	T	T	F
T	F	F	T
F	T	F	T
F	F	F	T

and

p	q	$\sim p$	$(\sim p) \wedge q$
T	T	F	F
T	F	F	F
F	T	T	T
F	F	T	F

(not P) and Q

$(\sim p) \wedge q$

(c) $(P \text{ or } R)$ and $(Q \text{ or } R)$

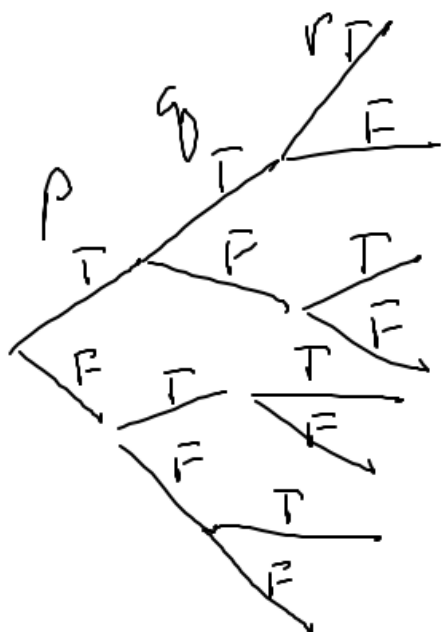
$(p \vee r) \wedge (q \vee r)$

(Note: In the original image, '1' is written above 'p', '2' above 'q', and '3' above 'r'. 'OR' is written in green above the first two terms, and 'AND' is written in orange above the second two terms.)

p	q	r	$p \vee r$	$q \vee r$	$(p \vee r) \wedge (q \vee r)$
T	T	T	T	T	T
T	T	F	T	F	F
T	F	T	T	T	T
T	F	F	F	F	F
F	T	T	T	T	T
F	T	F	F	F	F
F	F	T	T	F	F
F	F	F	F	F	F

AND ("∧")

p	q	$p \wedge q$
T	T	T
T	F	F
F	T	F
F	F	F



pg 279

Programming Exercise

(#3)

input: investment amount
APR

output: number of years required for
investment to "double"

e.g. \$100 → 148.71 204.35

stop $\geq 2*$ for example (e.g.)
5%

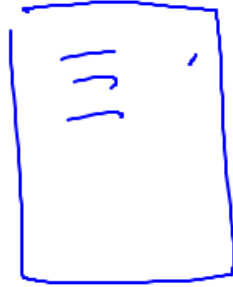
for example

$$\text{prin} = \text{prin} (1 + \text{APR})$$

.05

PA #3

— Truth Tables



PA #9

Chp 3

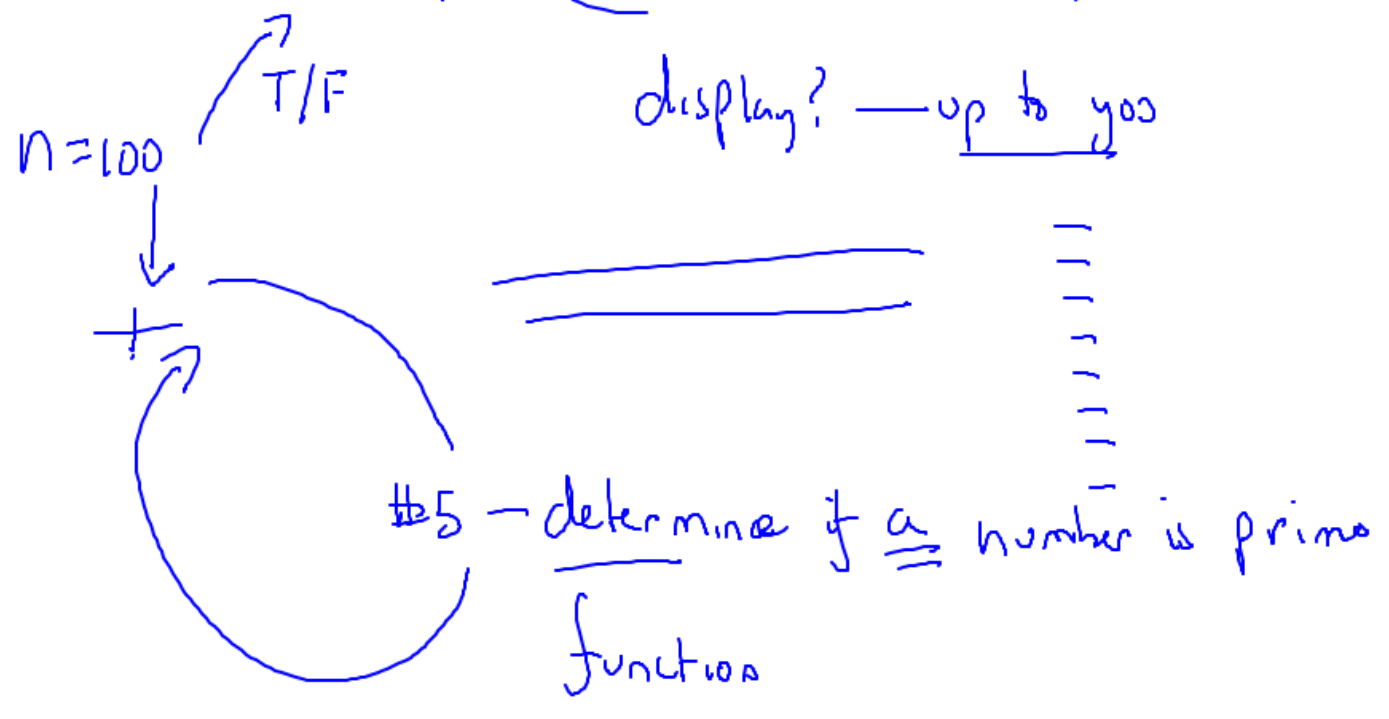
#6 (requires #5) — pg 230

#13

Combo of #14 & 15

#6 input: n (positive integer)

output: (all prime numbers) $\leq n$



99
98
97
96
95
...

90

#6 → all
Shell
(no graphics)

49, 2

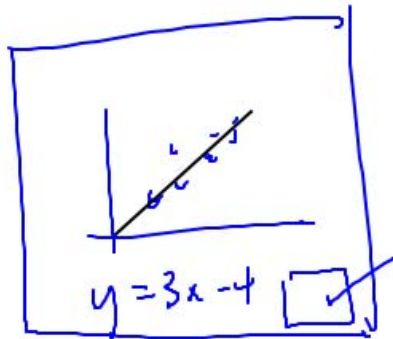
✓ def isPrime(n):

Prime Check

return True or False

#13 — all graphed

explains



abl graphiw

