63*.84	58.59
63*.72	52.92
63*.64	45.36
	40.32

64 +

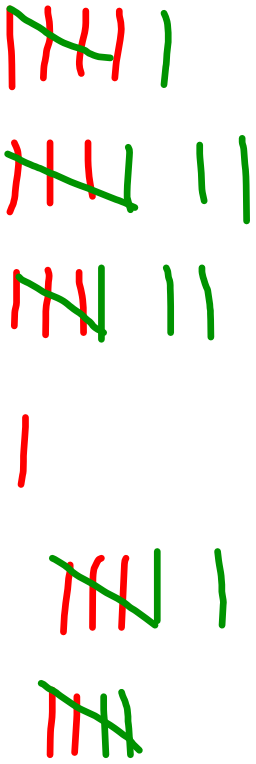
59-63 → A

53-58 → B

46-52 → C

41-45 → D

40- → F



⑧ S.S. of $\mathbb{Z}$

$\{\ldots, -2, -1, 0, 1, 2, \ldots\}$

$\mathbb{N} = \{1, 2, 3, 4, \ldots\}$

$\mathbb{W} = \{0, 1, 2, 3, 4, \ldots\}$

10 $2x = 5$

Domain is $\mathbb{N}$

$\emptyset$

2.5

(18) $\sim(\sim p)$

(12) $y + 5 \leq 12$

$\{0, 1, 2, 3, 4, 5, 6, 7\}$

(12) $y + 5 \leq 12$

$-5 \quad -5$

$y \leq 7$

(14) $3g \geq 21$

$\{7, 8, 9, 10, \ldots\}$

$\frac{3g}{3} \geq \frac{21}{3}$

$g \geq 7$

(11) $2n > 7$

$\{4, 5, 6, ?, \ldots\}$

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

(34) T.V. of #31

#31 $\sim(q \wedge r)$

$\sim(T \wedge F)$

$\sim(\ F\ )$

T

Above #23

$p \to F$

$q \to T$

$r \to F$

(33) T.V. of #30

#30 $\sim p \wedge q$

$\sim F \wedge T$

$T \wedge T$

T

Above #23

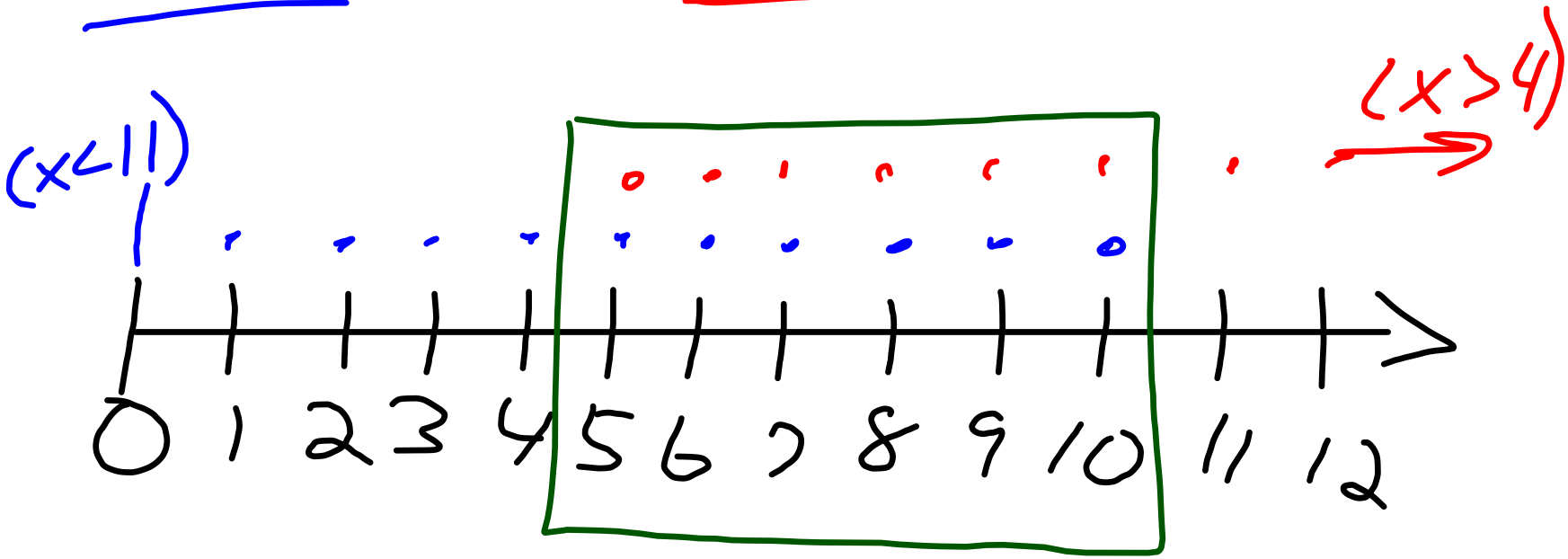
$p \to F$

$q \to T$

$r \to F$

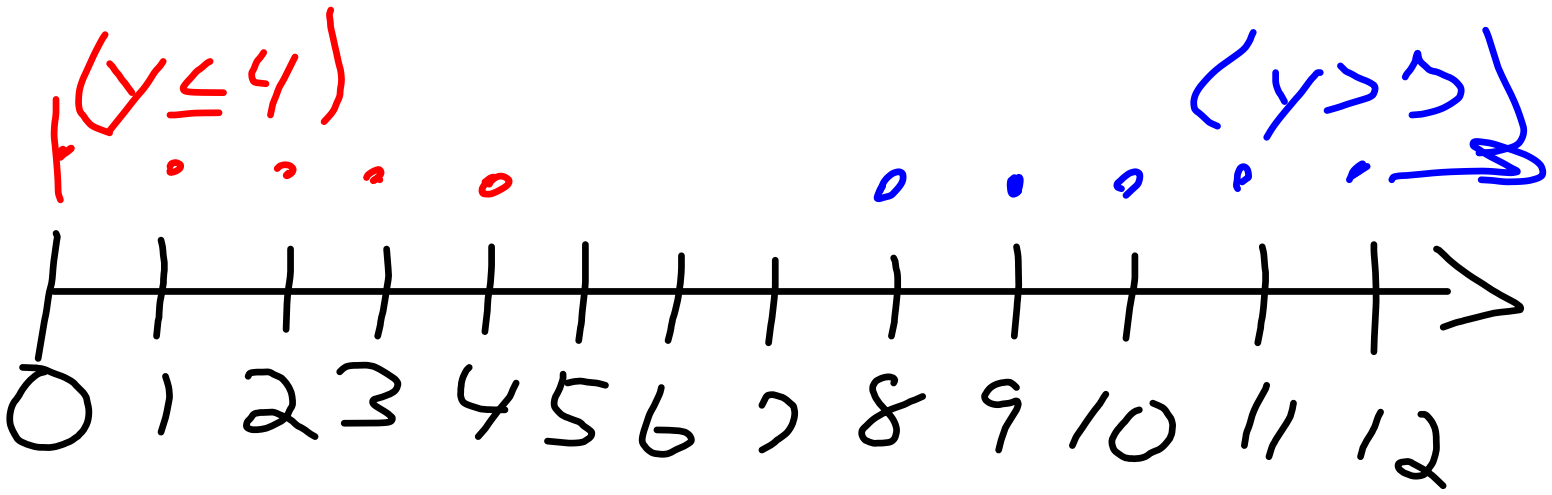
p	q	$\sim q$	$(p \wedge \sim q)$	$q \wedge (p \wedge \sim q)$
T	T	F	F	F
T	F	T	T	F
F	T	F	F	F
F	F	T	F	F

$x < 11$ and $x > 4$



$\{5, 6, 7, 8, 9, 10\}$

$y \geq 7$ and $y \leq 4$



$\emptyset$

(26)

T.V. of #23

Ans to #23

$p \wedge q$

$F \wedge T$

F

Above #23

$p \to F$

$q \to T$

$r \to F$

(25) T. V. of 24:

Ans to #24 $q \wedge \sim r$

$T \wedge \sim F$

$T \wedge T$

T

Above #23

$p \to F$

$q \to T$

$r \to F$

5D $\sim(q \wedge r)$

It is false that Buffalo is in NY and Boston is in Oregon