“HOW WE COUNT: Connecting Math and Judaism”

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links to my related work are at https://LarryLesser.com/Judaism/

OUTLINE: What do we learn about Jewish values by how we count…
….in **holy books**?
….**time**?
….our fellow **Jews**?

ITEM #1: Leviticus (Vayikra) 23:15-16, as displayed in a *Chumash*

טו וּסְפַרְתֶּם לָכֶם, מִמָּחֳרַת הַשַּׁבָּת,
מִיּוֹם הֲבִיאֲכֶם, אֶת-עֹמֶר הַתְּנוּפָה:
שֶׁבַע שַׁבָּתוֹת, תְּמִימֹת תִּהְיֶינָה.

15 And ye shall **count** unto you from the morrow after the day of rest, from the day that ye brought the sheaf of the waving; **seven weeks** shall there be complete;

טז עַד מִמָּחֳרַת הַשַּׁבָּת הַשְּׁבִיעִת,
תִּסְפְּרוּ חֲמִשִּׁים יוֹם; וְהִקְרַבְתֶּם
מִנְחָה חֲדָשָׁה, לַי-ה-וָ-ה.

16 even unto the morrow after the seventh week shall ye **number fifty days**; and ye shall present a new meal-offering unto the LORD.

ITEM #2: Temple Mount Sinai, *Messages from the Mountain*, April 2018, no. 688, p. 21. “We would ask that you consider gifts in multiples of $18. The number 18 is *chai*, meaning life.”

ITEM #3: Hosea (Hoshea) (2:1): “And the children of Israel shall be as the sand of the sea, which will be neither measured nor counted…”

וְהָיָה מִסְפַּר בְּנֵי-יִשְׂרָאֵל, כְּחוֹל הַיָּם, אֲשֶׁר לֹא-יִמַּד, וְלֹא יִסָּפֵר

ITEM #4: *Kitzur Shulchan Aruch* 15:3 -- “Care should be taken not to take a head count of people to verify whether there is a *minyan*, because **it is forbidden to take a head-count of Jews** even for the purpose of a *mitzvah*, for it is written [I Samuel 15:4]: ‘And Saul gathered the nation and counted them by means of lambs.’ It is customary to count them by reciting the verse: *Hoshiah es amecha* etc. [Psalms (Tehillim) 28:9, see below] which contains ten words.”

Save Your people and bless Your inheritance, and tend them and elevate them forever.

ט הוֹשִׁיעָה אֶת־עַמֶּךָ וּבָרֵךְ אֶת־נַחֲלָתֶךָ וּרְעֵם
וְנַשְּׂאֵם עַד־הָעוֹלָם׃

ITEM #5: numerical equivalents of Hebrew alphabet (from omniglot.com)

ט	ח	ז	ו	ה	ד	ג	ב/ב	א
טֵית	חֵית	זַיִן	וָו	הֵא (הֵי)	דָּלֶת (דָּלֶד)	גִימֶל	בֵּית/בֵּית	אָלֶף
tet	chet	zayin	vav	he(y)	dalet(d)	gimel	bet/vet	alef
t	h/ch	z	w	h	d	g	b/v	'
[t]	[x]	[z]	[v]	[h]	[d]	[g]	[b, v]	[ʔ, Ø]
9	8	7	6	5	4	3	2	1

ס	ן	נ	ם	מ	ל	ך	כ/כ	י
סָמֶךְ	נון סוֹפִית	נון	מֵם סוֹפִית	מֵם	לָמֶד	כָּף סוֹפִית	כָּף/כָּף	יוֹד (יוּד)
samech	nun	nun	mem	mem	lamed	kaf	kaf/khaf	yod (yud)
s	sofit	n	sofit	m	l	sofit	k/kh	y/i
[s]	final nun	[n]	final mem	[m]	[l]	final kaf	[k, x]	[j]
60		50		40	30		20	10

ת	שׁ/שׂ	ר	ק	ץ	צ	ף	פ/פ	ע
תָּו/תָּף	שִׁי/שִׁין	רֵישׁ (רֵיש)	קוֹף (קוּף)	צָדִי סוֹפִית	צָדִי (צָדִיק)	פֵּא סוֹפִית	פֵּא	עַיִן
tav(f)	sin/shin	resh (reyish)	kof (kuf)	tzadi	tzadi(k)	pe	pe(y)/fe	ayin
t	sh/s	r	k	sofit	tz/ts/z	sofit	p/f	'
[t]	[ʃ, s]	[ʁ]	[k]	final tzadi	[ʦ]	final pe	[p, f]	[ʔ, Ø]
400	300	200	100		90		80	70

ITEM #6: more examples for exploring **gematria**

- Lag (B'Omer): לג Tu (B'Shevat): טו Chai ("life"): ח'
- In honor of **Shavuot**, interpret the gematria for Ruth (רות) and Torah (תורה).
- For each of these **Shabbat** words, keep adding the digit values together until you get a single digit: candle (*ner*: nun, resh), wine (*yayin*: yud, yud, nun), *challah* (chet, lamed, hey), fish (*dag*: dalet, gimmel), soup (*marak*: mem, resh, kuf), meat (*basar*: beit, shin, resh), Yiddish word *cholent* (tet, shin, ayin, lamed, ayin, nun, tet).

***ITEM #7*: Quotations**

"To the degree that a man is lacking in the wisdom of mathematics, he will lack one hundredfold in the wisdom of the Torah" – the Vilna Gaon, influential 18th-century rabbi who also wrote mathematics books

"[One] who wishes to attain human perfection should study Logic first, next Mathematics, then Physics, and lastly Metaphysics." – Maimonides, *Guide for the Perplexed*

"Rabbi Yitzchak said, 'Blessing is found not in something weighed, not in something measured, and not in something counted but rather, in something hidden from the eye.' " – Talmud (*Tractate Bava Metzia* 42a)

"Not everything that counts can be counted; not everything that can be counted, counts." – Einstein