Jeremy — PS 4 — 2025-01-29

In[110]:=

```
WordCloud[StringTake[StringReverse[WordList[]], 1]]
```

Out[110]=

In[111]:=

```
RomanNumeral[1959]
```

Out[111]=

```
MCMLIX
```

In[112]:=

```
Max[Table[StringLength[RomanNumeral[n]], {n, 1, 2020}]]
```

Out[112]=

```
13
```

In[113]:=
```
WordCloud[Table[StringTake[RomanNumeral[n], 1], {n, 100}]]
```

Out[113]=

In[114]:=
```
Length[Alphabet["Russian"]]
```

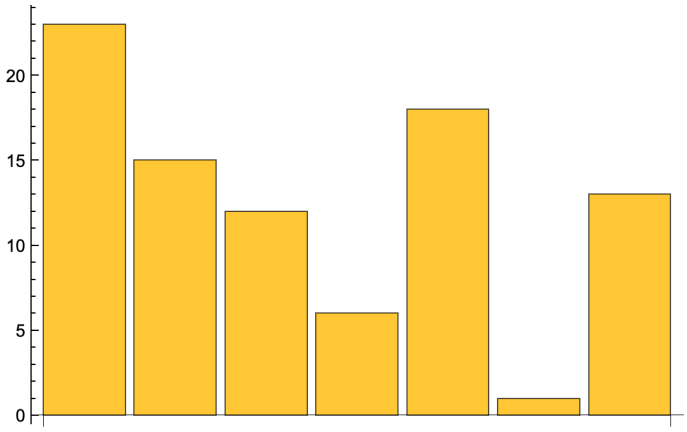
Out[114]=
```
33
```

In[115]:=
```
ToUpperCase[Alphabet["Greek"]]
```

Out[115]=
```
{Α, Β, Γ, Δ, Ε, Ζ, Η, Θ, Ι, Κ, Λ, Μ, Ν, Ξ, Ο, Π, Ρ, Σ, Τ, Υ, Φ, Χ, Ψ, Ω}
```

In[116]:=
```
BarChart[LetterNumber["wolfram"]]
```

Out[116]=



In[117]:=
```
StringJoin[Table[FromLetterNumber[RandomInteger[{1, 26}]], 1000]]
```

Out[117]=
```
bqktspdkcevjfzrbqaajyxfxwuneroqtypauzjiqfvcotaaavtkptpczzbgjnwdjgwebdrhewpzamnbyl
   rhtdwuteipqeelfjhhiuhryxmstjmjigemdjwtpnwbivpwrnriloifjownwniwatcabmodewqfdvkm
   abjpvsnardvwpwczgvkjoajyvnalakvrdegduvwshygegrocjhcuntxgybiduzdgtfyyvdbkgkgmoq
   vbmlsaumpyfqdnwatsipspkjvhhlyguglxanuqktqovvxqjgtconnpadaxauqyfqnblfkckqlqifxw
   dsvxrxqjzphahchftslhogizibxasxinclajigzjxcvhmluodgzvqekonpmqjjfgyqkxgnjrdifhgp
   jzlthnsstggezfvwifpzhohqvxykqitsrhihwtsdslzawydmumlfamsoszxyllantgypkdchziqzbu
   otfwsgseqpvezgmpahiyciaskqrazvrbxfiucjeaccyekqdqszkysmcaczjhhlbizelrzxjvtcgnwe
   efvargkjjvjwxfxpinmphyfvqwhydkbsxzsytlexrwpjurkibodpqgonbbiqvydtfqishhwtlxtdiz
   rwyafvxppogklvtcshxxybcrskxirylaazumneofjupzreiofjoryasbsawcjxpoulgsktihudrfzg
   nrvxoslsrobetkdrulqkpusfhtvszmjbwagbthwgrperozasqdhwbjxxghkcijjeedjspwnhurobuo
   fqbrgodiuucxskuvrxzkdbbqitcfvqkdnadhkqijdfjbtcgrabtbctlikvkumslhsuzzzikuoflqrn
   yyzbnztfunjwdnqvnjdxdvplmmaicovkbptlieiztuyccrgwldeltdgtwwtohnxcaflycwfsbwvfin
   yevtolusuzrwluglbvfysyseeznrjtajridkbggokhioyvgjuuvrwlmpajnsb
```

In[118]:=
```
Table[StringJoin[Table[FromLetterNumber[RandomInteger[{1, 26}]], 5]], 100]
```

Out[118]=
```
{otmkm, kuawf, ixhvs, casnd, uqrgh, vvvxs, enhzz, bbdlb, lzocd, idevw, yjqwt, calqs,
 ghgfm, duiav, scpxh, njfed, vzchg, zwpjq, rdswy, npukm, bgjdw, lbldw, xzznh,
 vgugt, fzgmh, ndyhu, kmcol, ajhzw, xhter, znnsx, fgtgy, vgphh, glujd, izedy,
 seezv, ywqne, qtpzw, hiujy, jljwh, rlpil, rtpix, rggfj, ndxrp, bmvvu, bsajr,
 cpojv, vexsz, rkmwr, fnqao, uvmie, wvcsm, khmvo, hppqh, wdwgh, zijxh, uqcxu,
 abuil, gzyyy, undom, ydjlh, amhqz, vkzpc, jerhz, vttor, zmjrl, vjjum, mbyux,
 sjvfr, stdge, cratj, ifwnm, zxmjk, ljmml, xajvb, sdmju, xqcfu, gjcsq, ncgkb,
 shqrr, yjflg, fwwhr, kyyux, jrouu, kdoom, bwtqh, dtojh, rzriv, hamoc, ueenp,
 obllw, apkuf, vnwpg, ocwlq, fmhws, zurrt, vlemg, guabc, isbli, xsugq, fdpzp}
```

In[119]:=
```
Transliterate["wolfram", "Greek"]
```

Out[119]=
```
βολφραμ
```

In[120]:=
```
StringJoin[Table["🐗🐑", 10]] (*For some reason my Mathematica has
 difficulty processing Emoji characters. This was the best I could manage.*)
```

Out[120]=
🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑🐗🐑

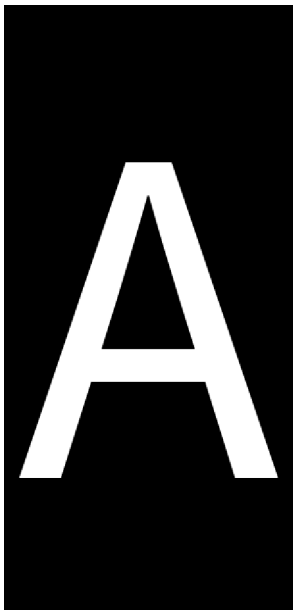
In[121]:=
```
Transliterate[Alphabet["Arabic"]]
```

Out[121]=
```
{a, b, t, th, j, h, kh, d, dh, r, z, s, sh, s, d, t, z, ʿ, gh, f, q, k, l, m, n, h, w, y}
```

In[122]:=

```
ColorNegate[Rasterize[Style["A", 200]]]
```

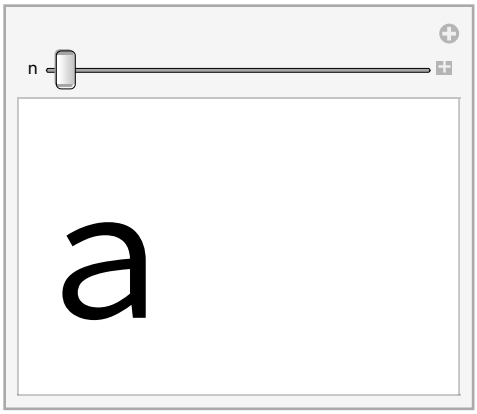
Out[122]=



In[123]:=

```
Manipulate[Style[FromLetterNumber[n], 100], {n, 1, 26, 1}]
```

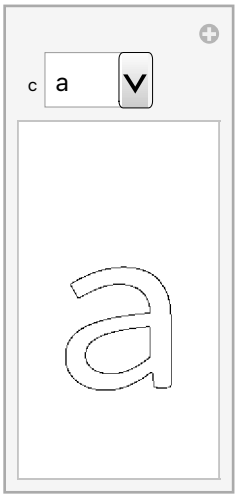
Out[123]=



In[124]:=

```
Manipulate[ColorNegate[EdgeDetect[Rasterize[Style[c, 100]]]], {c, Alphabet[]}]
```

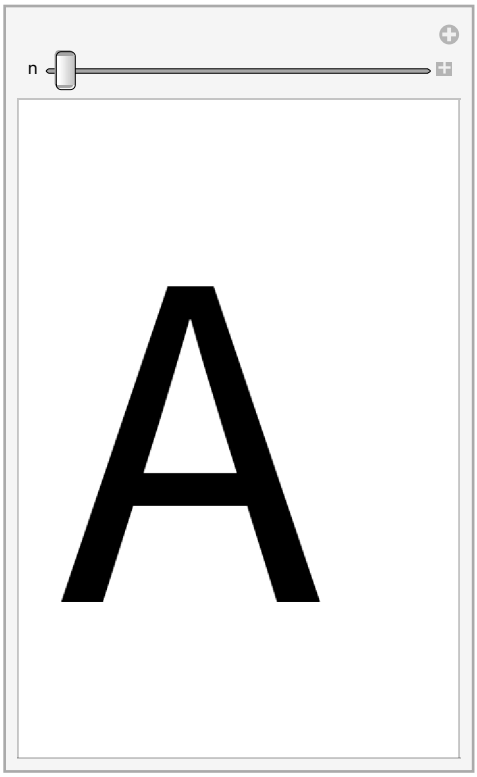
Out[124]=



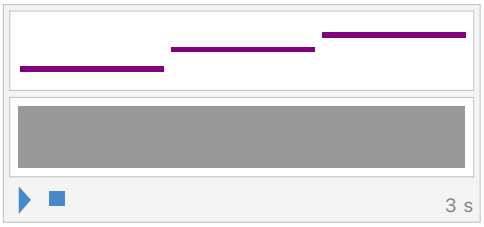
In[125]:=

```
Manipulate[Blur[Rasterize[Style["A", 200]], n], {n, 0, 50}]
```

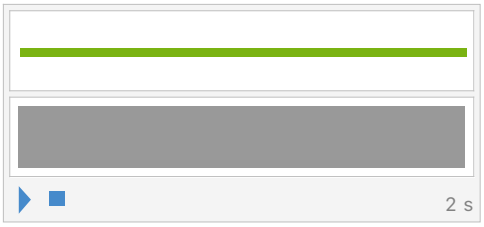
Out[125]=



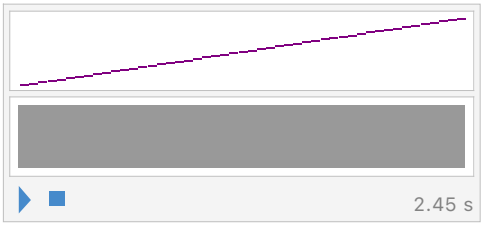
In[126]:=
```
Sound[{SoundNote[0], SoundNote[4], SoundNote[7]}]
```
Out[126]=



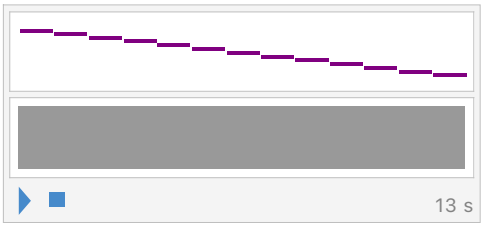
In[127]:=
```
Sound[SoundNote["A", 2, "Cello"]]
```
Out[127]=



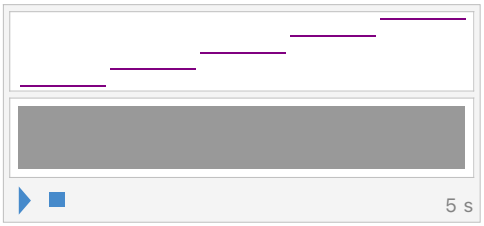
In[128]:=
```
Sound[Table[SoundNote[p, 0.05], {p, 0, 48, 1}]]
```
Out[128]=



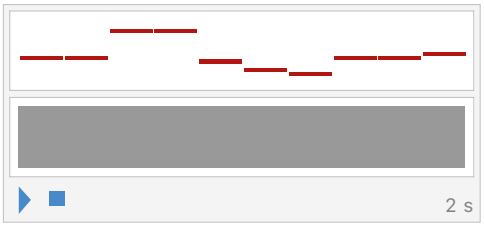
In[129]:=
```
Sound[Table[SoundNote[p], {p, 12, 0, -1}]]
```
Out[129]=



In[130]:=
```
Sound[Table[SoundNote[p], {p, 0, 48, 12}]]
```
Out[130]=



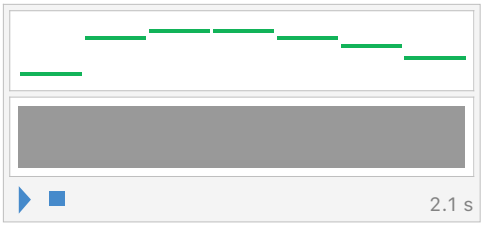
In[131]:=
```
Sound[Table[SoundNote[RandomInteger[12], 0.2, "Trumpet"], 10]]
```
Out[131]=



In[132]:=
```
Sound[Table[SoundNote[RandomInteger[12], RandomInteger[10] / 10], 10]]
```
Out[132]=

In[133]:=
```
Sound[Table[SoundNote[Part[IntegerDigits[2^31], n], 0.1],
  {n, 1, Length[IntegerDigits[2^31]]}]]
```
Out[133]=

In[134]:=
```
Sound[Table[SoundNote[Part[Characters["CABBAGE"], n], 0.3, "Guitar"],
  {n, 1, StringLength["CABBAGE"]}]]
```
Out[134]=



In[135]:=
```
Sound[Table[SoundNote[LetterNumber[Part[Characters["wolfram"], n]], 0.1],
  {n, 1, StringLength["wolfram"]}]]
```

Out[135]=

In[136]:=
```
Grid[Table[i * j, {i, 12}, {j, 12}]]
```

Out[136]=

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

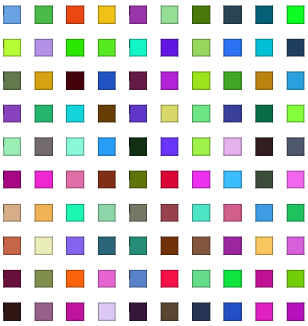
In[137]:=
```
Grid[Table[RomanNumeral[i * j], {i, 5}, {j, 5}]]
```

Out[137]=

I	II	III	IV	V
II	IV	VI	VIII	X
III	VI	IX	XII	XV
IV	VIII	XII	XVI	XX
V	X	XV	XX	XXV

In[138]:=
```
Grid[Table[RandomColor[], 10, 10]]
```

Out[138]=



In[139]:=

```
Grid[Table[Style[RandomInteger[10], RandomColor[]], 10, 10]]
```

Out[139]=

2	3	2	6	7	4	5	0	4	7
8	6	9	9	6	10	7	8	0	9
10	8	5	9	4	5	0	10	8	6
8	1	5	7	6	9	2	3	6	10
10	3	2	1	1	2	6	7	7	4
6	7	0	6	8	7	10	3	1	5
1	10	6	6	0	0	6	1	5	7
9	0	9	5	7	9	9	1	7	1
8	4	0	4	10	2	7	10	0	8
7	1	8	5	2	5	9	3	10	9

In[140]:=

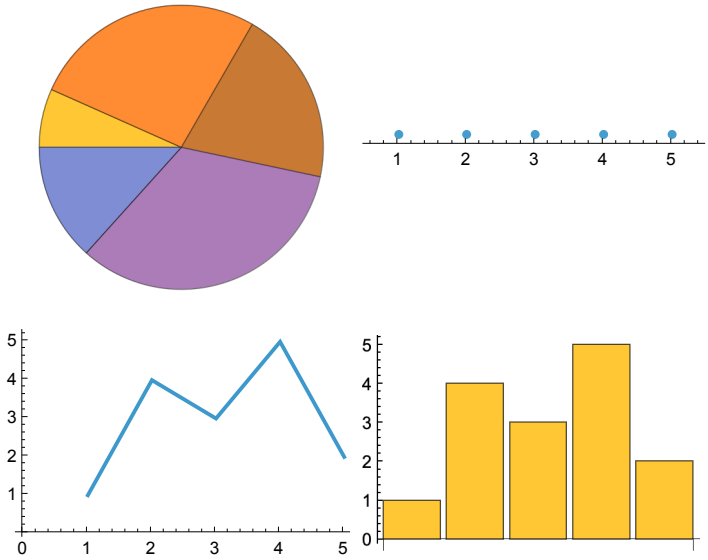
```
Grid[Table[StringJoin[FromLetterNumber[i], FromLetterNumber[j]], {i, 26}, {j, 26}]]
```

Out[140]=

aa	ab	ac	ad	ae	af	ag	ah	ai	aj	ak	al	am	an	ao	ap	aq	ar	as	at	au	av	aw	ax	ay	az
ba	bb	bc	bd	be	bf	bg	bh	bi	bj	bk	bl	bm	bn	bo	bp	bq	br	bs	bt	bu	bv	bw	bx	by	bz
ca	cb	cc	cd	ce	cf	cg	ch	ci	cj	ck	cl	cm	cn	co	cp	cq	cr	cs	ct	cu	cv	cw	cx	cy	cz
da	db	dc	dd	de	df	dg	dh	di	dj	dk	dl	dm	dn	do	dp	dq	dr	ds	dt	du	dv	dw	dx	dy	dz
ea	eb	ec	ed	ee	ef	eg	eh	ei	ej	ek	el	em	en	eo	ep	eq	er	es	et	eu	ev	ew	ex	ey	ez
fa	fb	fc	fd	fe	ff	fg	fh	fi	fj	fk	fl	fm	fn	fo	fp	fq	fr	fs	ft	fu	fv	fw	fx	fy	fz
ga	gb	gc	gd	ge	gf	gg	gh	gi	gj	gk	gl	gm	gn	go	gp	gq	gr	gs	gt	gu	gv	gw	gx	gy	gz
ha	hb	hc	hd	he	hf	hg	hh	hi	hj	hk	hl	hm	hn	ho	hp	hq	hr	hs	ht	hu	hv	hw	hx	hy	hz
ia	ib	ic	id	ie	if	ig	ih	ii	ij	ik	il	im	in	io	ip	iq	ir	is	it	iu	iv	iw	ix	iy	iz
ja	jb	jc	jd	je	jf	jg	jh	ji	jj	jk	jl	jm	jn	jo	jp	jq	jr	js	jt	ju	jv	jw	jx	jy	jz
ka	kb	kc	kd	ke	kf	kg	kh	ki	kj	kk	kl	km	kn	ko	kp	kq	kr	ks	kt	ku	kv	kw	kx	ky	kz
la	lb	lc	ld	le	lf	lg	lh	li	lj	lk	ll	lm	ln	lo	lp	lq	lr	ls	lt	lu	lv	lw	lx	ly	lz
ma	mb	mc	md	me	mf	mg	mh	mi	mj	mk	ml	mm	mn	mo	mp	mq	mr	ms	mt	mu	mv	mw	mx	my	mz
na	nb	nc	nd	ne	nf	ng	nh	ni	nj	nk	nl	nm	nn	no	np	nq	nr	ns	nt	nu	nv	nw	nx	ny	nz
oa	ob	oc	od	oe	of	og	oh	oi	oj	ok	ol	om	on	oo	op	oq	or	os	ot	ou	ov	ow	ox	oy	oz
pa	pb	pc	pd	pe	pf	pg	ph	pi	pj	pk	pl	pm	pn	po	pp	pq	pr	ps	pt	pu	pv	pw	px	py	pz
qa	qb	qc	qd	qe	qf	qg	qh	qi	qj	qk	ql	qm	qn	qo	qp	qq	qr	qs	qt	qu	qv	qw	qx	qy	qz
ra	rb	rc	rd	re	rf	rg	rh	ri	rj	rk	rl	rm	rn	ro	rp	rq	rr	rs	rt	ru	rv	rw	rx	ry	rz
sa	sb	sc	sd	se	sf	sg	sh	si	sj	sk	sl	sm	sn	so	sp	sq	sr	ss	st	su	sv	sw	sx	sy	sz
ta	tb	tc	td	te	tf	tg	th	ti	tj	tk	tl	tm	tn	to	tp	tq	tr	ts	tt	tu	tv	tw	tx	ty	tz
ua	ub	uc	ud	ue	uf	ug	uh	ui	uj	uk	ul	um	un	uo	up	uq	ur	us	ut	uu	uv	uw	ux	uy	uz
va	vb	vc	vd	ve	vf	vg	vh	vi	vj	vk	vl	vm	vn	vo	vp	vq	vr	vs	vt	vu	vv	vw	vx	vy	vz
wa	wb	wc	wd	we	wf	wg	wh	wi	wj	wk	wl	wm	wn	wo	wp	wq	wr	ws	wt	wu	wv	ww	wx	wy	wz
xa	xb	xc	xd	xe	xf	xg	xh	xi	xj	xk	xl	xm	xn	xo	xp	xq	xr	xs	xt	xu	xv	xw	xx	xy	xz
ya	yb	yc	yd	ye	yf	yg	yh	yi	yj	yk	yl	ym	yn	yo	yp	yq	yr	ys	yt	yu	yv	yw	yx	yy	yz
za	zb	zc	zd	ze	zf	zg	zh	zi	zj	zk	zl	zm	zn	zo	zp	zq	zr	zs	zt	zu	zv	zw	zx	zy	zz

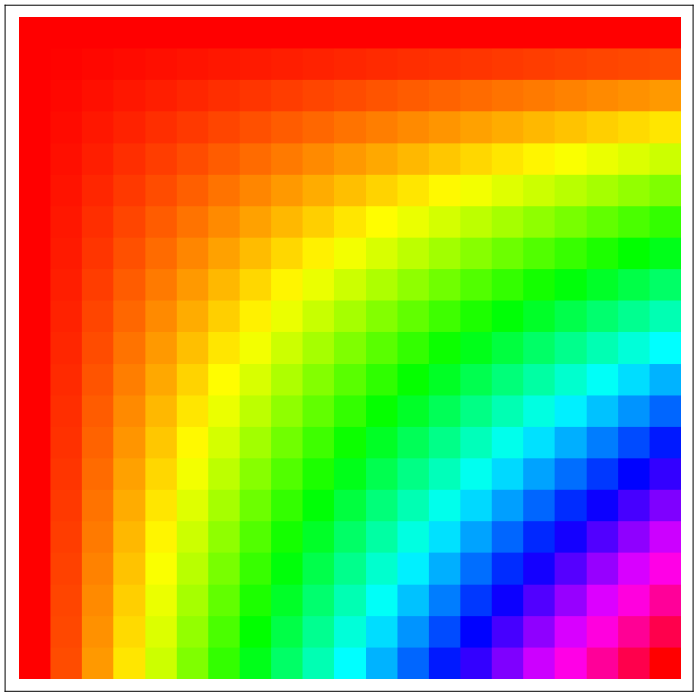
In[141]:=
```
Grid[{{PieChart[{1, 4, 3, 5, 2}], NumberLinePlot[{1, 4, 3, 5, 2}]},
  {ListLinePlot[{1, 4, 3, 5, 2}], BarChart[{1, 4, 3, 5, 2}]}}]
```

Out[141]=



In[142]:=
```
ArrayPlot[Table[Hue[i * j], {i, 0, 1, 0.05}, {j, 0, 1, 0.05}]]
```

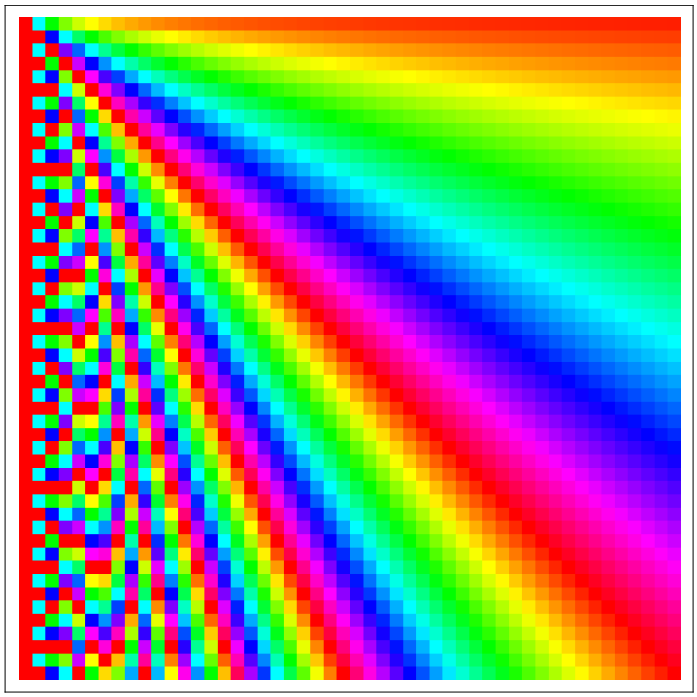
Out[142]=



In[143]:=

```
ArrayPlot[Table[Hue[x / y], {x, 1, 50, 1}, {y, 1, 50, 1}]]
```

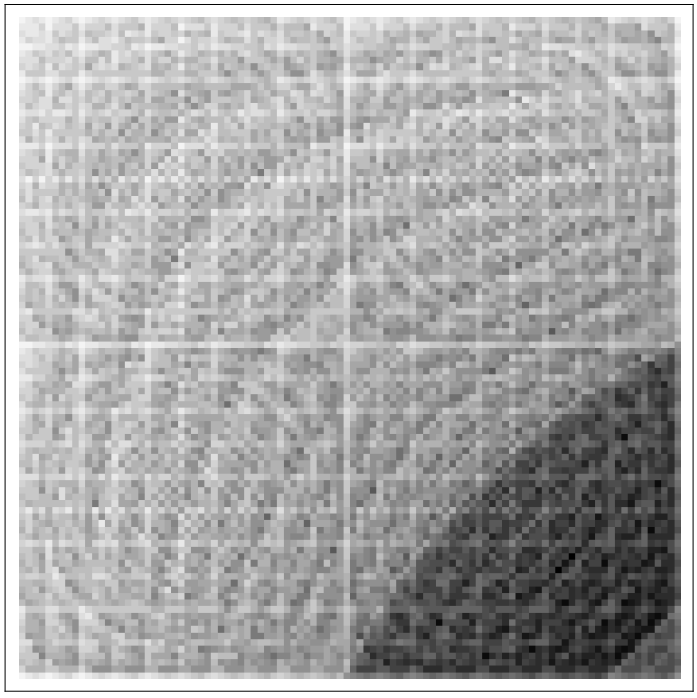
Out[143]=



In[144]:=

```
ArrayPlot[Table[StringLength[RomanNumeral[i * j]], {i, 100}, {j, 100}]]
```

Out[144]=



In[145]:=

In[146]:=

In[147]:=

In[148]:=

In[149]:=