

SONNETS
FROM
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ON THE NUMBERS FROM ZERO TO TEN

Kenneth E. Boulding is Distinguished Professor of Economics Emeritus at the University of Colorado. He composed these sonnets during a visit to the System and Decision Sciences Area in the summer of 1981.

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ZERO

*This is the greatest number of them all
Disguised as a mere point marking a graph
But underneath, a diabolic laugh,
An infinite abyss in which to fall
Of nothingness. No Thing can more appall
Than nothing – no, no rope, no rod, no staff
Can save us from what can't be done by half –
Where nothing is, there's no-one we can call
But if there's anything, then there is hope
For take the smallest thing, divide by zero,
And zoom! springs up infinity, the hero
That even with blank nothingness can cope
For multiply infinity by nought
And the vast finite universe is wrought.*

ONE

*Before the universes were begun
Beyond the furthest flights of mind and thought
In the great unimaginable, was there nought
Or was there, inconceivably, a One?
But back to earth – when all is said and done
How could arithmetic, or more, be taught
Except by one and one and one – so ought
Not one to be of all our thought the sun?
And here is mystery too – that I am many
Yet one in all my multitudinous parts
Like a great reel of patterned rope that darts
From birth to death. Yet neither I nor any
One can conceive what power, or what Divinity
Can make a One, out of a near-infinity.*

TWO

*Cleave the whole universe and make it Two
But careful! it can cleave at any place
And two is all we need, for sex, class, race
Talk, sneers, fights, love, to cherish or to rue
With two, teachers can teach and lawyers sue
Two can communicate from face to face,
Walk arm in arm, or part, or else embrace
There seems no limit on what two can do!
Two can create new life, two can destroy
A duel can turn two into one, or nought
Two minus one is one, when prey is caught
But one plus one makes three, when ones employ
Ones one, and all alone, for ever more so
But split it into two, and off we go!*

e (2.71828)

*Along the road, somewhere 'twixt two and three
There is a most strange monument to time
When roughly five-sevenths of the way you climb
You sense it, though its shape you cannot see
Mathematicians call it simply "e"
It may seem to have no reason and less rhyme
But just put out to interest a thin dime
Continuously compounded, sleasily
Growing each moment at an annual rate
At which by simple interest it would double
In one year's time. Then, without any trouble
You'll find not two, but e dimes on your plate –
Though nineteen-sevenths of a sum of money
Only in mathematics isn't funny.*

THREE

*Two's company, and three, of course, a crowd
Two can do much, but three can do much more
Two love or fight – a third can keep the score
Three make three different pairs, if that's allowed
The odd one out may – or may not – be cowed,
But without three, where is the playwright's lore,
Who would we hiss, and who would we adore?
How could I know the sun, but for the cloud?
And then, of course, there is the trinity
Far beyond dialectics – First, Potential,
That must be realised in an essential
Script or score. That to be heard must be
Played – with high spirit, if not always holy
All in one pattern, yet Three, not one solely.*

Π (3.14159)

*Nearly one-seventh of the way to four
We find another monument – a wheel
With a diameter we see and feel
And pace, and count how many steps we score
Then find the way all round is pi times more
Than the quick way across – but ah! how do we deal
With an unending number that is real? –
When we ourselves are finite to the core!
No wonder Indiana passed a law
To say pi should be three, to make things easy
For children in their schools, – and for the queasy
Insist the Holy Bible has no flaw,
For something in the Book of Kings is found
Ten cubits straight across, and thirty round!*

FOUR

*Four winds, four seasons, phases of the moon
Four legs to every table, every chair
How solid it can seem to be foursquare
And Four/Four common time makes a good tune
Two shoot it out on Main Street at high noon
But to these scrappers add another pair
And we have tennis, where all's square and fair
And we have made a sportsman from a goon
But careful now! Earth, Air, Water and Fire
Were not enough. A fifth evangelist
Found in a cave, might well improve the list.
The four grim horsemen bring disaster dire,
And when the sharp command goes out "form fours"
Flee to the woods – it may be time for wars!*

FIVE

*Five for the symbols at your door
Sight, hearing, taste, and touch, and smell
Five arms the starfish has as well
Our head, arms, legs add to no more
In old rhymes, groups of three or four
The graces, fates, Blind Mice, all tell
Good tales, like the four horsemen fell,
But fives are nowhere in old lore
But then there is the Pentagram
With five sharp points – a magic star
In which from Satan safe we are –
But even that is all a sham
Likewise we are defended not
By Pentagon's five-sided plot.*

SIX

*Before we are at sevens, we are at sixes
A bit confused, past the simplicity
Of unity, or even two or three
Into the world of "many", where the mixes
Explode in number, past all simple fixes
And even statisticians can't agree
How to describe the complex shapes we see
And randomness turns us all into pixies!
Still, thanks to old Chaldea, six still rules
Time's measurement in seconds, minutes, hours
Six tens, six twos, six fours display their powers
Over the clock, in all the different schools
Though inch and penny die on metric block
Not even Frenchmen metricize the clock.*

SEVEN

*So now we come to seven, the lucky number
And groups in plenty to this banner flock
Both deadly sins and cardinal virtues shock
The unexamined mind out of its slumber
Salome's seven veils merely encumber
More elegantly than a strip-tease frock
Seven dwarfs, lamps, wonders, all come out of stock
Like seven wives, sacks, cats, kits and other lumber
But there's more to it – seven, plus or minus
Is all that we can grasp in loose array
Or so, at least, psychologists all say
And six to eight seem best to wine and dine us
And so the magic of the number seven
May well have been produced in Plato's heaven.*

EIGHT

*After wild seven, eight is very square
There's something prim about an octagon
The eightfold way for Buddhists still goes on
The square dance is what eight performers share
When oddball numbers get into your hair
And make you feel a little put upon
Add one to them – they're even when you've done
And getting even with them's only fair.
But eight is more than square – it is a cube
Solidly sitting, two by two by two
While one by one by one is one – so do
We see how models all go down the tube
For double lengths, and we increase the weight
Of any structure, live or not, by eight.*

NINE

*The even numbers have a taste of earth
The odd take on a touch of things divine
And that perhaps is why there are muses nine
To guarantee that we will have no dearth
Of company, as with torment and mirth
We sketch and scribble, line by painful line
On our small canvas, the immense design
Of everything that has both truth and worth
But nine, too, is a matrix, three by three
Useful, indeed for playing tic-tac-toe
But useful also when we want to show
All pairs involving A and B and C
And then we see – letting our minds take wing
How everything reacts with everything.*

TEN

*Ah!, now we see the double-digit bringers
And in the scale we use we're back again
To one and zero, when we come to ten
Only because we have ten toes or fingers
And mankind's early childhood habit lingers
Of holding up our outspread digits when
We want to show to those within the den
How many rabbits, foes, dancers or singers
Apart from that, the decimal is dismal:
It won't divide in quarters or in thirds
And outside drinking, fifths are for the birds
So counting tens is ignorance abysmal
And we would do much better by ourselves
If only we would learn to count in twelves!*
