Certain Classes of Abbreviations

#90 of Gottschalk's Gestalts

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GG90-2

☐ phrases containing ‘if’

• if and only if
iff

• if it exists
iit

• if they exist
ite

☐ phrases containing ‘in’

• in addition to
iat

• in general
ing

• in order to
iot

• in order to prove
iotp

• in order to prove that
iotpt

• in other symbols
ios

• in other words
iow

• in particular
inp

• in place of
ipo

• in regard to
irt

• in spite of
iso

• in terms of
ito

• in the form
itf

• in the form of
itfo

• in the groove
itg

☐ phrases containing ‘of’

• in place of
ipo

• in spite of
iso

• in terms of
ito

• of the form
otf

☐ phrases containing ‘that’

• in order to prove that
iotpt

• it is enuf to prove that
iietpt

• it is necessary to prove that
iintpt

• it is necessary and sufficient to prove that
iinastpt

• it is sufficient to prove that
iistpt

• so that
st

• such that
st

☐ phrases containing ‘to’

• according to
acto

• in addition to
iato

• in order to
ioto

• in regard to
irt

• it is enuf to prove
iietp

• it is enuf to prove that
iietpt

• it is necessary and sufficient to prove
iinastp

• it is necessary and sufficient to prove that
iinastpt

• it is necessary to prove
iintp

• it is necessary to prove that
iintpt

• it is sufficient to prove
iistp

• it is sufficient to prove that
iistpt

• relative to
relto

• with regard to
wrt

• with respect to
wrt

☐ phrases containing ‘under’

• under suitable conditions
usc

• under suitable hypotheses
ush

• under the condition(s)
utc

• under the condition(s) that
utct

• under the hypothesis/hypotheses
uth

• under the hypothesis/hypotheses that
utht

☐ phrases containing ‘which’

• which are
wa

• which is
wi

• which was to be proved
wwtbp

☐ words/phrases containing ‘with’

• endowed with
ew

• equipped with
ew

• provided with
pw

• together with
tw

• with
w

• within
wi

• without
wo

• without loss of generality
wlog

• with regard to
wrt

• with respect to
wrt

• with the understanding that
wtut

☐ other phrases

• as well as
awa

• it is enuf
iie

• it is necessary
iin

• it is necessary and sufficient
iinas

• it is sufficient
iis

• necessary and sufficient
nas

• necessary and sufficient condition
nasc

• the following statements are equivalent
tfsae

• the following statements are pairwise equivalent
tfsape

• the proof is completed
tpic

☐ a few abbreviations in caps

• as clear as a bell
ACAAB

• as clear as mud
ACAM

• as everybody/everyone knows
AEK

• as soon as possible
ASAP

• Before the Common Era
BCE

• Common Era
CE

• extrasensory perception/phenomena/powers
ESP

• for your information
FYI

• in my humble opinion
IMHO

• integration by parts
IBP

• left hand side
LHS

• Oxford English Dictionary
OED

• quite easily done
QED

• real soon now
RSN

• right hand side
RHS

□ some headings

D. $=_{df}$ Definition.

T. $=_{df}$ Theorem.

P. $=_{df}$ Proof.

R. $=_{df}$ Remark.

E. $=_{df}$ Example.

H. $=_{df}$ Hypothesis.

N. $=_{df}$ Notation. (which is understood to include terminology, words being symbols too)

K. $=_{df}$ Corollary.

L. $=_{df}$ Lemma.

LL. $=_{df}$ Litle Lemma.

X. $=_{df}$ Exercise.

GP. $=_{df}$ Geometric Picture.

HN. $=_{df}$ Historical Note.

PN. $=_{df}$ Philosophical Note.

SH. $=_{df}$ Standing Hypothesis.

☐ some geometric abbreviations

• point
pt

• line
ln

• plane
pl

• space
sp

• angle
ang

• side
sd

• straight
str

• right
rt

• bisect
bis

• trisect
tris

• midpoint
mpt

• perpendicular bisector
pb

• perpendicular
perp

• altitude
alt

• interior/internal
int

• exterior/external
ext

• tangent
tan

• secant
sec

• length
lg

• width
wd

• height
ht

• area
ar

• volume
vol

• curve/curvature
crv

• surface
surf

• solid
sol

• acute
act

• obtuse
obt

• oblique
obl

• scalar
sca

• vector
vec

• scalene
scln

• isosceles
isos

• equilateral
eqlat

• equiangular
eqang

• dimension
dim

☐ more equaters

• comes from
= cf

• is pronounced as
= pr

• is rooted in
= ri

• is symbolized by
= sb

• is a symbol for
= sf

☐ some abbreviations

using the existential quantifier ∃

- there exists

∃

- there does not exist

¬∃

- does there exist

?∃

☐ fields of mathematics

• algebra
alg

• number theory
nr thr

• group theory
grp thr

• ring theory
rng thr

• field theory
fld thr

• class field theory
cls fld thr

• graph theory
gr thr

• analysis
anl

• calculus
cal

• differential calculus
dif cal

• integral calculus
int cal

• differential and integral calculus
dif & int cal

• differential equations
dif eqns

• ordinary differential equations
ODE

• partial differential equations
PDE

• real analysis
rl anl

• complex analysis
cmpx anl

• functional analysis
fcn anl

• operator theory
op thr

• calculus of variations
cofv

• operations research
op res

• probability
prob

• statistics
stat

• probability and statistics
prob & stat

• geometry
geom

• euclidean geometry
eucl geom

• noneuclidean geometry
¬ eucl geom

• synthetic geometry
syn geom

• projective geometry
prj geom

• analytic geometry
anl geom

• algebraic geometry
alg geom

• knot theory
knt thr

• topology
top

• algebraic topology
alg top

• homology theory
homl thr

• homotopy theory
homt thr

• general topology
gen top

• low-dimensional topology
lodim top

• geometric topology
geom top

☐ how to help abolish
-ough & -ought

- enough = enuf
- rough = ruf
- thorough = thoro
- though = tho
- through = thru
- tough = tuf
- through and through = thru & thru
- nought = nawt
- ought = awt
- thought = thawr