. \_ 2ot6 ,

,

Ol aran N o[c

Dzo^ F \*";"'^'L .

! a.q:\* e-i rcz.L"t>"U

ry

e(aza ,-oE

b k-

,to ,'\*rf^rr\* So-ntz- ir>-v-f''-la^l-

'TIrztrz-

\*otO ai1-e- h.'alt-

,4 {,\*

u'r^-16 o.-"-(

e.i ru..Lo.bn t. Pl- Me-

pr\*

Crilt; \*v+-

hrL;l.

fL

L\fav m.il.;^1

fT"'4az ^">to ;

-9

t'-vet'l '14^;f^ g

h'-tl.

4 ,l^/rr', \*

l-\*t<t^

tF,\*

f- tt,'-'-,;1 b Ftta a\*.,.,...,.-pt\* ,A',-JU ' Sc\*--"{;"'-t

(\*

fF"t

g

Aa^,,+

Lrrc;1<-a , Srry-r-e-

+

fKt rz htoLz Anz-

( a)

g

,Jr" d',\*.h-o.,- +" lle-cln-a-,',"-'et -

Kle

7p\*-,r-.

+

,

K o le-r^ Eots ,

(b) Ru= n tc)c H^-il-'at-,

l< ro nz '

(c) Y\*'--2 U

4 Fn"-e Lrt'a-an ' (a) D' c' P^e'',

@ (f )

l1' C ' Vo:zvt't'd

N' t'4 IT V,'dao L'-+"-"4

\

ilC Leu'u''n '

(A W; k-ibe-d'ia'

5 ac)c^^'oat-A-y

'Y

\u/ I

'

(/.) TiPler$Yrrsca

Cis

b1n^"';'-

Yn''io'^'

($) $''J;'\*l- Pus".'-n\* 4

oE"" L'|nrk-'

oU' ff"\* oJtnl'4- o^-fl"ng

+ dE

'

g 3) I\* vwLa'n^J

P6\*

l'-a.rrz ad.de4

\*J t1^nL tn-e-n O,.--d. Tl,-o-r\*{^,tr . I rrut/e-tz- eLo;nt 17-r""b ,tuU t".ot4

6r1L h+"tlt

1-r-

"t

p1n-4r6 , 71,,$\t-

ry

h4- r)r>az

fuy"

, 3 ffi V\*";FX tr\*t

,vr-^-|sbJ<2. A,t'r^ .'r^- ^l: CJ^z d/-

4 ot^'u\'tv'l- ory

ta Wa'lt7\* ern-^2 crY i(

X+ r

f

P

1-J1\*rr@

p

L'4'-'<' rL^t n t\*ut yr."^^^)-

Atu|a3+ ^t

ryy.-I-

lrrn n"zdr\*

\*r,.,,t's l-d<s,

g'\*

t^t?))

\ L\*

fD\*,\* Lor-v-\*',t\* u n eH

fy

itr,

u^,J; t<, ilA\*

3 cl e't't u-

h.a oJsoLt Lr"^r,3 ' S+ t^ bzt^""'^ t'\*7-'^^ Ir-,^tL

b-4^t,,.ol-

uV';W

'&

%

tt-c"l-p

L{-f^,te-

hL

+n'tnd lba;\*'

\*u/

b'rt'";

aA 3 ue-J"l'-c' &d'

G^ h'L vQ'^;

l;-4

V

n4 d

&

+nol-

Y

if

y, tt",-"

iT,n)- ' 9 Nil b1 if""\*k4\*t

ft,"';31zJcc oY

?u

(\*

,ref fuzt>" '

'-\*

7

moYz- it'Jt -% a))

F'r\*

tt'/; a'14

Sc/T"eT'r^7

'pJ"en2 ^^oto

Lt-e"'-'n

Lof'n I ('\*

"f

^t

tv.,ts'lg,J"t-

AL c'{ tJlJvsv'

1T'\* b"t l'\* ry\*

^-- 7 '

,1"--

(\*r.,,

xteoc) lu%,

%t6,

ri V"o{o rc

. V".hv< & 8i no c'l-'"u-'

V-elor .lo

I

, F1.1,1 L aJ\*rr^ % 3/,','

f

\4 ;y,,o"^Jd

? 1T'- N''';4 e17\*al^-,

-) l-x

t-

+F7 -) Fy

L'i.d

144 ax

\*^rl

+ ca.^ L- latatt-- cro F = r\*7

l/waZ

P,-",?u\*k\*

t+

Ue-cbtrs

. E = 6'i(

4,'--r-cli-','- 4yt^-7^/-'^-a" ata'- Sa.\*n.

Ut-i'e Uu"-l->r ^

=E

6R I ,-a AI

6 = >.4

A aa; h',\*- ,l -

V-olvrs .

c (aal (c+ a) A a (E+r>)

n A

(- t ) uvt/J

lbF

A = Ill

lh^-6 d^^-.Loo, ,

6 + B :

-b\*A

(r-mm^l-^t;ud

A + LII+ -\ c) =

tA+ t= -t t3\_)+ c

-

: (ca)

: -

CA

e.a

C Assoc^'a.[r\*) I (t

) +dA (@ ro$ (,,

)

(

c"tir^;"^^

b t,

o>J^.hJ.r ,

fu"

lott"oo

W

.t-au,.-d-ed h\*d^>"\*h

W

+ ^rDf

b\*su Vuulov-3 .

b ot- ln--hrc

Ltw;f Vep@=

t

L A

an-Q. & tt"L

I

(

pr-,pr-,a; o"t\*)

(ntP

+tty I

Irrr La.aL -

dennpvva-ona,

i

oFtlln?,rn-^!

)r a.xk.

i

= 1'l4,nv l)e-&r L

"Ly = urvfr fu1

J

a.xis.

t: U+ib

ve-clor

n

7a..x's'

AN L'L

=

A J

.J ,A/\

= A,h l r

= l. t' j =

.k Az' t"\*i

=

L A

i xi

L

/\A l- x t

h

J 1

A: A\*L + A1 l + A2h

lAl

=

A; r L

+ h1 +

At

4 l'lnlh pL.oko^

Vn..lon .

(y) I\LuLEi p.Uc"l;

4

a. t)ac,lor q a

l^Lr\* e^ b A

I lcl =

ftlnl,b I

r"l; .o.lio- b4 - t + 4\?,vo

A s,o,

b | ftl

-

' ----7' 'wr J b F,- DrtV.r,.nI. L,'z-eloy.

ueofsr

oPp lt

,;,^- dr,r-rz-rl-r'ot,

V

bl Oof Pno d"^"[.

A- B= lAl lfbtAne

(

Pro

Jech"on

= B.A

=O

,f E un

A)

X h""-,V),

4"6

A. 13

oa. O = ?o.

I C\*rrt" ?roA^J'

I

g\*o.

lAl=o, oR lel^o

Ue-chr Pr-a,-+

AxrZ = l{t lbl stnl rya

tr\*-s

,lv ,\

:- b"a

AxG

)

H

"t->x-

O U ft- t(l

or.,, rL brl,^l\*u-^ fr 1 ts Tl.\2- e^nzrJr\*n'^' J.\*,^A tA A" b d.+,,r^-d A'^,'il"

b^, n;qrtvf- {r)\* 1pff'\* Plor^.,n-

C,6>r4'-n+t;ng A 1A.t AxB : rbxA A"A =o

He^ Ht JhL Q "o

m"!;co'!-

1ryLa-7ffLL -t 1"."[z I m) not '

,+ t

ttr^

e-a/,.- hL

U'-l OotL a,

+ f\*uJ-(\*\*

n\*ua, ,IT

ffl d/ ln9

F

\./

| I /

{r,-,-= basoxN--t\*rt-= = A"B

<J

A5UB

g+

u\'e' th,,\*

"l Mu

A Ue\*-et oe' l^^atte

&,\*o=

nXE t4 r..o t^ a vee/otr '

DoF ?ro J,A- 4 W.?n

To dtu\_c)\_ ; lurn

"

A ue-&,r Ca.'^ 6. u>nll;

; 4unrns

I

b^l\*,ur,g.

A=

(l\*, #r, fr\*) E = Azi r A, I + Azri'

4

,

$: BnL

+tuuJ A,\

+hzk

?

Fv,z K

h7 [.8 =' .

AxBz. ^

+ AlDv +

AzBk

vw

,\ L

I

"r{.

fr1

,\

0x h11

Bz

=(

Ay bT

- b'1

Az\ i.

( A\* hz

B\*

Az) 1A

J

+

( AnB'l

br +r)

K

L^4

Crra-i^"a

A= A +6

C, c =

cE+6)'(E+6) rc"1

= mLl + 16l"+ zlll 16l t=

'-'

tr+ U7 + or,--11<

4'u

ho

A' + r\*+ zAb b, (TT-

+)

A'+

(3'L - 2 A B 6'

Q

CUp = t\#"r

IJ nA

S';^ r'

h 3;t

ra'\f'

UAty

tt"u

?\*b ^-i\*l,^d: ,+ {

+rrr- 4

Vozhryl '

o;y^a La,^^

f^d bda.

I

a. Uzok:r ,'-,^l- tt-

urt-^'ct'

'''

/',",-J/h^l- fi'-' U€r-hn skwl

e. = A +b

Axe

^ E"A +- F\*a

Ac C;p= Ao

g'>

(rr-Y) I

e

S^h f

P.n'l'\*" Vuufur

klh."-fli, Uec-fz:-w d"-f;\*,- dq loc",^,.^f Z .L-z-a-n nv ffia^\*

f^h\* f

(\*

,"J, z)

O-f:

t

? a.

p\*.-"(., t L. /-w t^e f \* ,pr^-"h'',\*

c. +

f 4\*;lLA t" a

fccn

aL L",\*a^..^^f

a,z|' ot.r,,-,'ht /lt

o\4

L-i U

^' Cy."\_-.o-L aec/w

I Du>i'/r'; Ve-"/ztv

k-rr^ron

f &,Tz)=

z-t+

3J +z

h

u,r,Lk-- or4,"^\*j L)-c-/-='u b d.fe4d.

"?^

Lr.,-l-a-A

7t

N fr. | <b I

[ace , tn\*tl-

/ { Ve-cJzr

t I

fl t4 td.fo-.,4n--J- tf Crr".-A;n"^L 4./e/; q

[/

()rr.,

t -

U"-r/"y

9o

(x' '1'

'7)

Ar '

P,

Cn'

,Y,

'v')'

AT tn

.L

qrd" lT

^nl

(LeLtrua\f't-ew

fi r T- L n

uena-%- Ve-{-

t, ll - ?, r-

Ab

f

t

I ^.5 1",-r., J I

a.t rpra-t l, V el

V- il- t-

(t\*^t)- t/'(t)

\* -

I cCe)p-:-a.L'-vvt a ,-

.&l o

V (t+At) v (t)

^b

\*\*a =

tq- Va Z)l

AV

('^- /) lwl- .=

l-t

tq- L/ r

olu dt-

O |

'^ Ab)e

,f,.r.,, k--,t,nn

-

J "l -

CrrTn / /x/1.v^"/;

t\* ,.,^-

- (o-^Ln;^,^

./' ,1-

Lb /l-

6Ydr.na'/4

)" Lr) l T \

l

x- Lt)

'L' /\

J f "1 {v

Ct) ,l

+

A I

dr Lr) / t \ dr

A\*rc) Cr

L +

q Ct')

a

t f Tqlro

+

5f

t. ,^ + 'xG)h{ z(+)d.t?A -+ h €

t\,

C^n -- l;l {/9,-

\*L 9.\ 91 +

2l J + C.-- & U'v-L

Vo-J<nts i, a\n-z- Gt,-f lrtl

Urd' =

#

ar d;

=

#

'h

=At=o