


SETS

Setex: examples for sets	<pre> CHOOSE SET Sai: { X X=1 AND X=2 Sbi: { X X<-1 AND X Saf: { 1 2 3 4 5 6 } Sbf: { 4 5 6 7 8 9 10 Scf: { 3 2 1 0 B A } Sdf: { 3 5 2 0 3 Sap: { 1 1 3 1 1 4 1 Sbp: { 1 1 3 1 1 5 1 </pre>	<pre> EX : X=1 AND X=3 EX : X<-1 AND X=83 EX : X=1 AND X=3 OR X<-1 AND 1 {1 2 3 4 5 6} {4 5 6 7 8 9 10} {3 2 1 0 B A} {3 5 2 0 3} {1 3} {1 4} {2 3} {2 4} {1 3} {2 5} </pre>
[OK] shows examples		<pre> Setex Sunio Sints Sdiff Scomp Sprod </pre>
Sunion: union (2s)	<pre> EX : X=1 AND X=3 EX : X<-1 AND X=83 EX : X=1 AND X=3 OR X<-1 AND 1 {1 2 3 4 5 6} {4 5 6 7 8 9 10} {1 2 3 4 5 6 7 8 9 10} </pre>	<pre> {3 2 1 0 B A} {3 5 2 0 3} {3 2 1 0 B A 5 0} {1 3} {1 4} {2 3} {2 4} {1 3} {2 5} {1 3} {1 4} {2 3} {2 4} {2 5} </pre>
Sintsec: intersection (2s)		<pre> Setex Sunio Sints Sdiff Scomp Sprod </pre>
Sdiff, Scomp: difference, complementary set (2s)	<pre> EX : X=1 AND X=3 EX : X<-1 AND X=83 EX : X=1 AND X=3 AND X<-1 AND 1 {3 2 1 0 B A} {3 5 2 0 3} {3 2 0} </pre>	<pre> {1 2 3 4 5 6} {4 5 6 7 8 9 10} {1 2 3} {7 8 9 10} </pre>
Sprod: product set (2s)		<pre> Sdiff Scomp Sprod Ssize Sele? Sub? </pre>
Sdiff, Scomp: difference, complementary set (2s)	<pre> {1 2 3} {4 A} {1 4} {1 A} {2 4} {2 A} {3 4} </pre>	<pre> {1 2 3 4 5 6} {4 5 6 7 8 9 10} {1 2 3} {7 8 9 10} </pre>
Ssimpl: simplify delete multiple elemnets(1s)		<pre> Sdiff Scomp Sprod Ssize Sele? Sub? </pre>
Ssize: size (1s)	<pre> {3 2 1 2 A 4 3 B A 3} {1 2 3 4 A B} </pre>	<pre> {1 2 3 4 5 6} 6 {X : X=1 AND X=3} 8 </pre>
Sele?: checks if element (1s)		<pre> Sdiff Scomp Sprod Ssize Sele? Sub? </pre>
Ssub?: checks if subset (1s)	<pre> {1 2 3 4 5 6} {X : X=1 AND X=3} </pre>	<pre> {1 2 3 4 5 6} {1 3 4} </pre>
Setplot: {X X≥1 AND X≤3} (3.5s)		
Setplot: {-4 -1 2 3 4 } (2s)		

Schk: check set (1s)	RAD XYZ DEC R= 'X' {HOME SETS} USR 7: 6:  bad element 5: 7. 4: 3: 2: 1: (1 2 3 4 5 6 "") Schk Setp1 Seq Sort L-W T-IV	RAD XYZ DEC R= 'X' {HOME SETS} USR 7: 6: 5: 4: 3: (1 2 3 4 5 6) 2: (4 5 6 7 8 9 10) 1: {(1 4) (1 5) (1 6) (1 7) (1 8)} Sdiff Scomp Sprd Ssize Selc Ssub?
Sprod: Cartesian product (2s)	SETTHEORY: SETS ARE LISTS FINITE SET: {1 2 A B} INFINITE SET: {X 1 1..1} Setex SET-EXAMPLES Sunion SA SB + SU UNION Sintsec SA SB + SI INTERSECTION Sdiff SA SB + SD DIFFERENCE Scompl SA ST + SC COMPLEMENT OF SA IN ST Sprod SA SB + SP PRODUCT SET SP = {ix1 x2..1..3} GRAPH	Ssize SA + SA n SIZE OF SET Sele? SA EL + 1,0 1(0) + (0) ELEMENT Ssub? SA SB + SA SB 1,0 1(0) + SB=(0) SUBSET OF SET SA Schk C3 + C3 CHECK SET Setplot C3 / 'F(C3)<A' GRAPH Seq 'F(C3)' k K1 K2 + C3 SEQUENCE GRAPH
HelpSETS: help		