RUN
Berechnung 'SCHUB' B. Zindler Ø8.Ø4.1994
a = 2
b = 2
e(y)= 1
e(z)= 1

Alpha	F(tau)n	Q	Q'
Ø	35.3	5Ø	5Ø
5	38.3	54	54
1Ø	4Ø.9	58	58
15	43.3	61	61
2Ø	45.3	64	64
25	46.9	66	66
3Ø	48.2	68	68
35	49.2	7Ø	7Ø
4Ø	49.8	7Ø	7Ø
45	5Ø	71	71
5Ø	49.8	7Ø	7Ø
55	49.2	7Ø	7Ø
6Ø	48.2	68	68
65	46.9	66	66
7Ø	45.3	64	64
75	43.3	61	61
8Ø	4Ø.9	58	58
85	38.3	54	54
9Ø	35.3	5Ø	5Ø

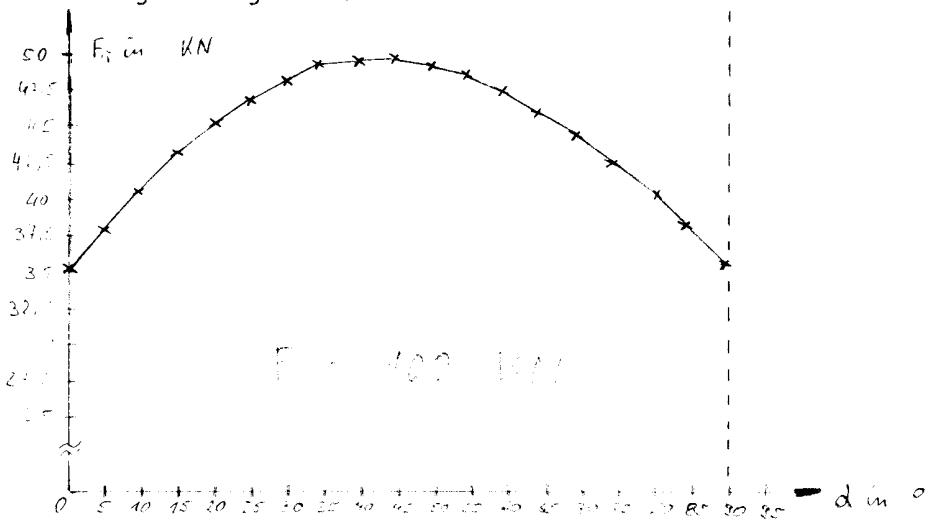
Beta = 45
Delta= 45

Alle Werte unter den gegebenen Randbedingngen errechnet!

Einheiten:

Alpha, Beta, Gamma in Grad(Alt) 'o'
F(tau)n, Q, Q' in Kilonewton 'KN'
a, b, e(y), e(z) in Meter 'm'

Es folgt Diagramm.



OK
)

```
RUN
Berechnung 'SCHUB' B. Zindler Ø3.Ø4.1994
a    =  2
b    =  3
e(y)=  .5
e(z)=  .5
```

Alpha	F(tau)n	Q	Q'
Ø	15	25	17
5	16.2	27	18
1Ø	17.4	29	19
15	18.3	31	2Ø
2Ø	19.2	32	21
25	19.9	33	22
3Ø	2Ø.5	34	23
35	2Ø.9	35	23
4Ø	21.1	35	23
45	21.2	35	24
5Ø	21.1	35	23
55	2Ø.9	35	23
6Ø	2Ø.5	34	23
65	19.9	33	22
7Ø	19.2	32	21
75	18.3	31	2Ø
8Ø	17.4	29	19
85	16.2	27	18
9Ø	15	25	17

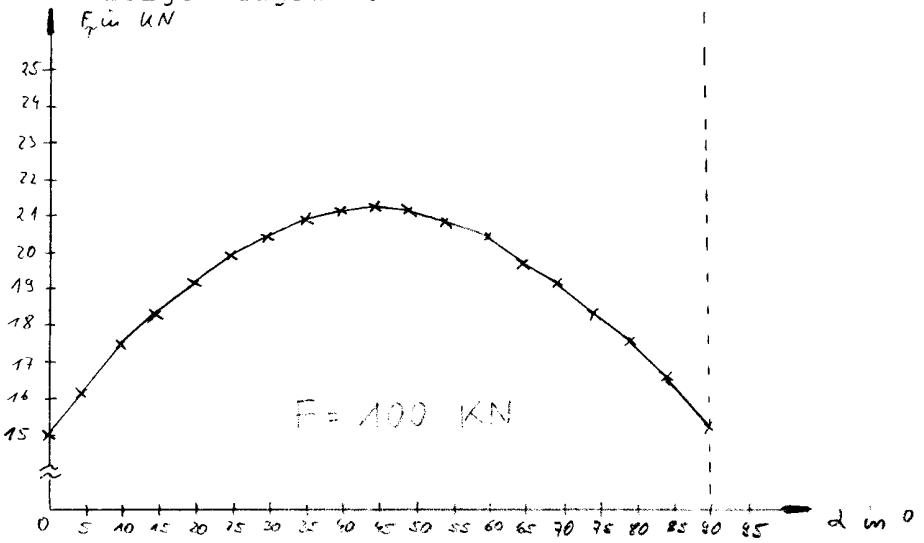
```
Beta =  56.3
Delta=  33.6
```

Alle Werte unter den gegebenen Randbedingungen errechnet!

Einheiten:

Alpha, Beta, Gamma in Grad(Alt) 'o'
F(tau)n, Q, Q' in Kilonewton 'KN'
a, b, e(y), e(z) in Meter 'm'

Es folgt Diagramm.




```
OK
)
```

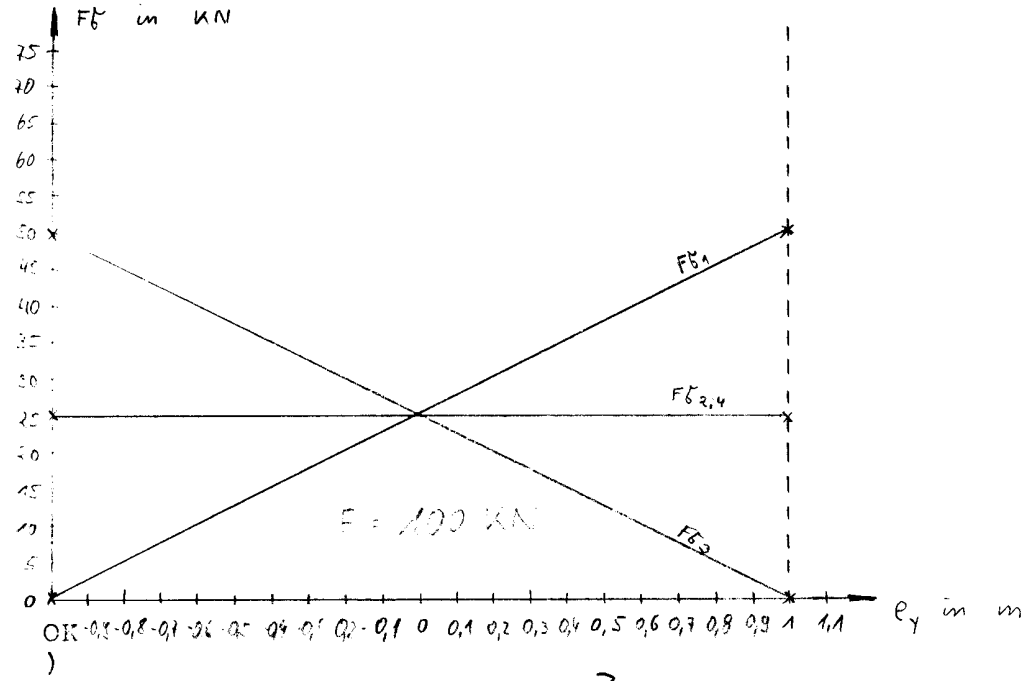
```
RUN
Berechnung 'Zug'    B. Zindler Ø9.Ø4.1994
a    =2
b    =2
e(z)=b/a * e(y)

-----------------------------------------
e(y)          e(z)     F(sigma)1;2;3;4

-1            -1       Ø    25   5Ø   25
-.9           -.9      3    25   48   25
-.8           -.8      5    25   45   25
-.7           -.7      8    25   43   25
-.6           -.6      1Ø   25   4Ø   25
-.5           -.5      13   25   38   25
-.4           -.4      15   25   35   25
-.3           -.3      18   25   33   25
-.2           -.2      2Ø   25   3Ø   25
-.1           -.1      23   25   28   25
 Ø             Ø       25   25   25   25
 .1            .1      28   25   23   25
 .2            .2      3Ø   25   2Ø   25
 .3            .3      33   25   18   25
 .4            .4      35   25   15   25
 .5            .5      38   25   13   25
 .6            .6      4Ø   25   1Ø   25
 .7            .7      43   25   8    25
 .8            .8      45   25   5    25
 .9            .9      48   25   3    25
 1             1       5Ø   25   Ø    25

-----------------------------------------
```

Alle Werte unter den gegebenen Randbedingungen errechnet!

Einheiten:

a, b, e(y), e(z) in Meter 'm'
F(sigma)n in Kilonewton 'KN'
Sigmawerte gerundet!

Es folgt Diagramm.



OK
)

```
RUN
Berechnung 'Zug'    B. Zindler Ø9.Ø4.1994
a    =2
b    =3
e(z)=e(y)
```

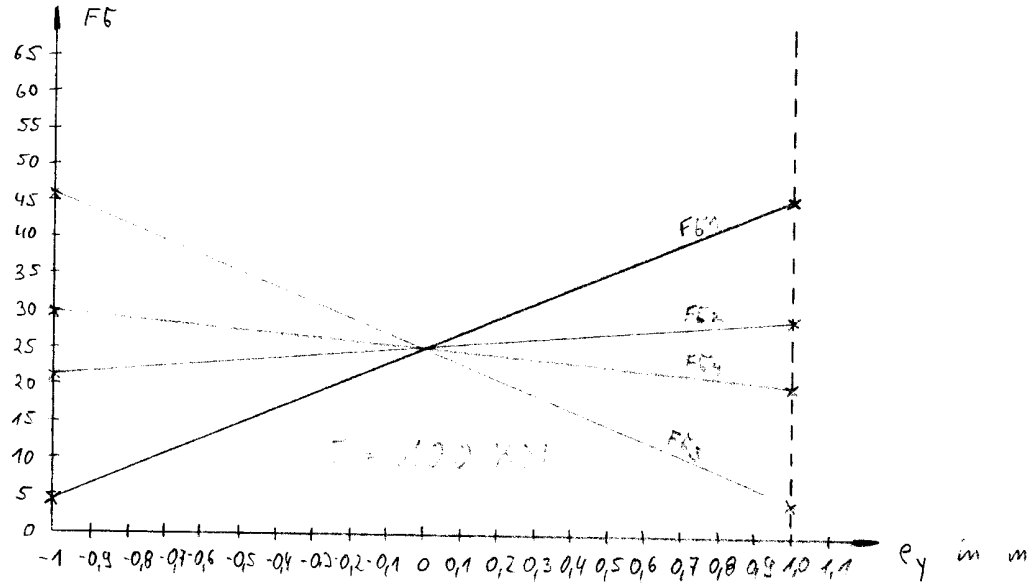
e(y)	e(z)	F(sigma)1	2	3	4
-1	-1	4	21	46	29
-.9	-.9	6	21	44	29
-.8	-.8	8	22	42	28
-.7	-.7	1Ø	22	4Ø	28
-.6	-.6	12	23	38	28
-.5	-.5	15	23	35	27
-.4	-.4	17	23	33	27
-.3	-.3	19	24	31	26
-.2	-.2	21	24	29	26
-.1	-.1	23	25	27	25
Ø	Ø	25	25	25	25
.1	.1	27	25	23	25
.2	.2	29	26	21	24
.3	.3	31	26	19	24
.4	.4	33	27	17	23
.5	.5	35	27	15	23
.6	.6	38	28	12	23
.7	.7	4Ø	28	1Ø	22
.8	.8	42	28	8	22
.9	.9	44	29	6	21
1	1	46	29	4	21

Alle Werte unter den gegebenen Randbedingungen errechnet!

Einheiten:

a, b, e(y), e(z) in Meter 'm'
F(sigma)n in Kilonewton 'KN'
Sigmawerte gerundet!

Es folgt Diagramm.



OK
)

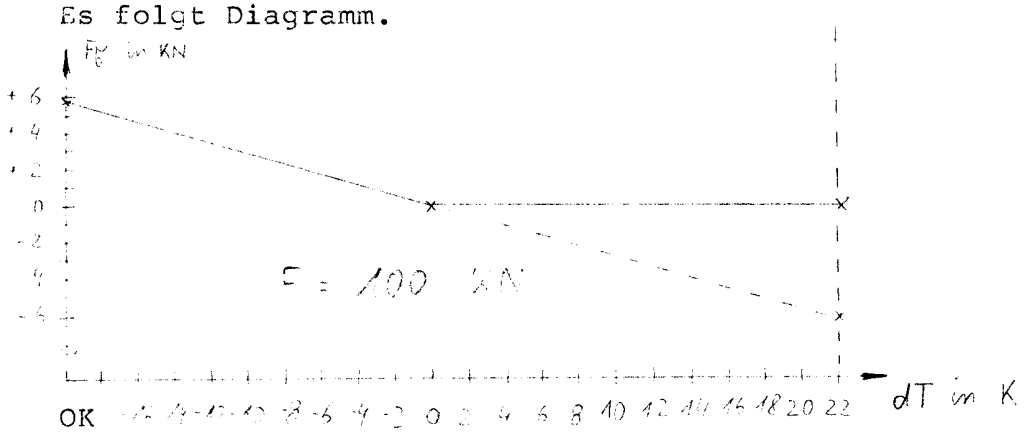
```
RUN
Berechnung 'dT-sig' B.Zindler 1Ø.Ø4.1994

E        = 2,1 * 1Ø,5  ---  Stahl
Alpha(1)= 1,Ø * 1Ø,-6 ---  Glas
Alpha(2)= 1,3 * 1Ø,-5 ---  Stahl
d        = 12

-----------------------------------------
dT             F(sigma)n

-2Ø             5.7
-18             5.1
-16             4.6
-14             4
-12             3.4
-1Ø             2.9
-8              2.3
-6              1.7
-4              1.1
-2              .6
 Ø              Ø
 2              Ø              -.6
 4              Ø              -1.1
 6              Ø              -1.7
 8              Ø              -223
 1Ø             Ø              -2.9
 12             Ø              -3.4
 14             Ø              -4
 16             Ø              -4.6
 18             Ø              -5.1
 2Ø             Ø              -5.7

-----------------------------------------
```

Alle Werte unter den gegebenen Randbedingungen errechnet!

Einheiten:

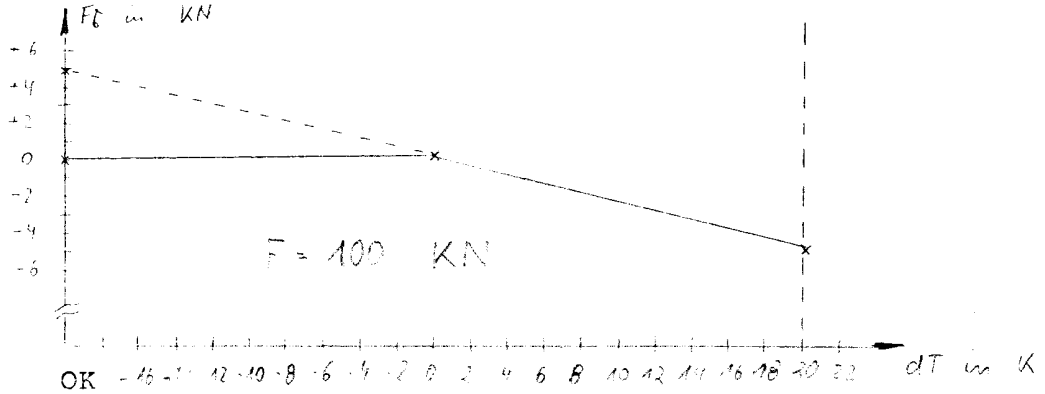
E Newton je Quadratmillimeter 'Nmm,-2'
Alpha(1);(2) in Kelvin,-1 'K,-1'
d in Millimeter 'mm'
dT in Kelvin 'K'

Es folgt Diagramm.



OK
)

```
RUN
Berechnung 'dT-sig' B.Zindler 1Ø.Ø4.1994

E        = 2,1 * 1Ø,5  ---  Stahl
Alpha(1)= 2,3 * 1Ø,-5 --  Alu
Alpha(2)= 1.3 * 1Ø,-5 ---  Stahl
d        = 12

-----------------------------------------
dT            F(sigma)n

-2Ø             Ø            -4.8
-18             Ø            -4.3
-16             Ø            -3.8
-14             Ø            -3.3
-12             Ø            -2.9
-1Ø             Ø            -2.4
-8              Ø            -1.9
-6              Ø            -1.4
-4              Ø            -1
-2              Ø            -.5
 Ø              Ø
 2              .5
 4              1
 6              1.4
 8              1.9
 1Ø             2.4
 12             2.9
 14             3.3
 16             3.8
 18             4.3
 2Ø             4.8

-----------------------------------------

Alle Werte unter den gegebenen Randbedingungen errechnet!


Einheiten:

E  Newton je Quadratmillimeter 'Nmm,-2'
Alpha(1);(2) in Kelvin,-1  'K,-1'
d in Millimeter 'mm'
dT in Kelvin 'K'

Es folgt Diagramm.
```




```
OK
)
```

```
RUN
Berechnung 'dT-sig' D.ZINDLER 1Ø.Ø4.1994

E        = 2,1 * 1Ø,5  --- Stahl
Alpha(1)= 1,2 * 1Ø,-5 --- Beton B1Ø
Alpha(2)= 1,3 * 1Ø,-5 --- Stahl
d        = 12

-----------------------------------------
dT            F(sigma)n

-2Ø             .48
-18             .43
-16             .38
-14             .33
-12             .29
-1Ø             .24
-8              .19
-6              .14
-4              .1
-2              .Ø5
 Ø              Ø
 2              Ø            -.Ø5
 4              Ø            -.1
 6              Ø            -.14
 8              Ø            -.19
 1Ø             Ø            -.24
 12             Ø            -.29
 14             Ø            -.33
 16             Ø            -.38
 18             Ø            -.43
 2Ø             Ø            -.48

-----------------------------------------


Alle Werte unter den gegebenen Bedingungen errechnet!


Einheiten:

E Newton in Quadratmillimeter 'Nmm,-2'
Alpha(1);(2) in Kelvin,-1 'K,-1'
d in Millimeter 'mm'
dT in Kelvin 'K'

Es folgt Diagramm.




OK
)
```

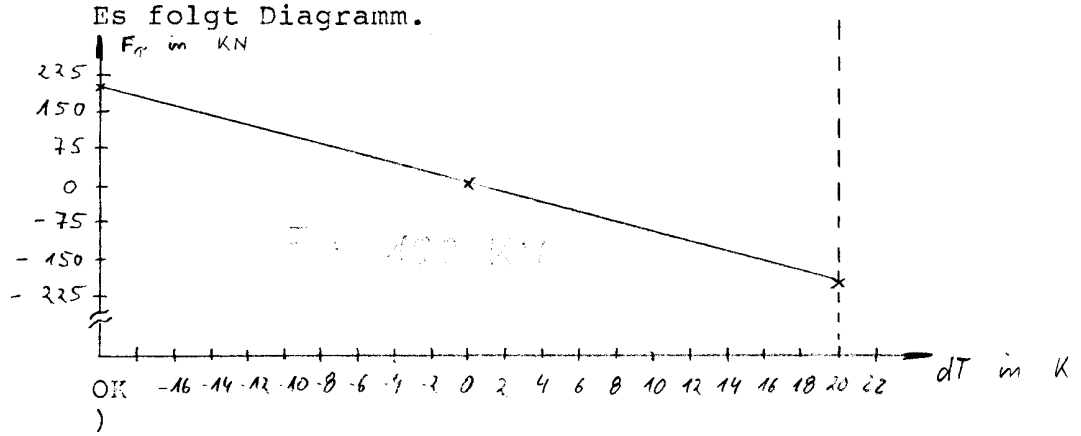
```
RUN
Berechnung 'dT-tau' B.Zindler 1Ø.Ø4.1994

E     = 22 * 1Ø,3  ---  Beton B1Ø
Alpha = 1,2 * 1Ø,-5
t     = 2Ø
a     = 2ØØØ
b     = 3ØØØ
F     = 1ØØ

-----------------------------------------
dT            F(tau)n

-2Ø            19Ø.4
-18            171.3
-16            152.3
-14            133.3
-12            114.2
-1Ø            95.2
-8             76.1
-6             57.1
-4             38.1
-2             19
 Ø             Ø
 2            -19
 4            -38.1
 6            -57.1
 8            -76.1
 1Ø           -95.2
 12           -114.2
 14           -133.3
 16           -152.3
 18           -171.3
 2Ø           -19Ø.4

-----------------------------------------
```

Alle Werte unter den gegebenen Randbedingungen errechnet!

Einheiten:

E Newton je Quadratmillimeter 'Nmm,-2'
Alpha in Kelvin,-1 'K,-1'
t, a, b IN Millimeter 'mm'
dT in Kelvin 'K'

Es folgt Diagramm.



OK
)