

Langfrist-Temperaturverläufe Deutschlands: Das Phänomen der „Temperaturstufen“

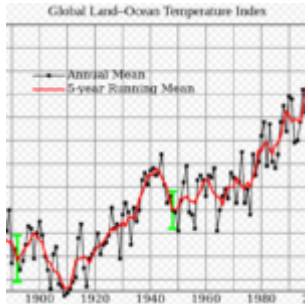


Bild rechts: Stufen! Bild: Rainer Sturm / pixelio.de

Viele glauben, dass die Temperaturen mit dem ziemlich stetig zunehmenden CO₂-Eintrag so stetig und stabil zunehmen würden, wie es beispielhaft die Grafiken aus [WIKIPEDIA](#) (Bild1) und vom [wiki.bildungsserver](#) (Bild2) darstellen.

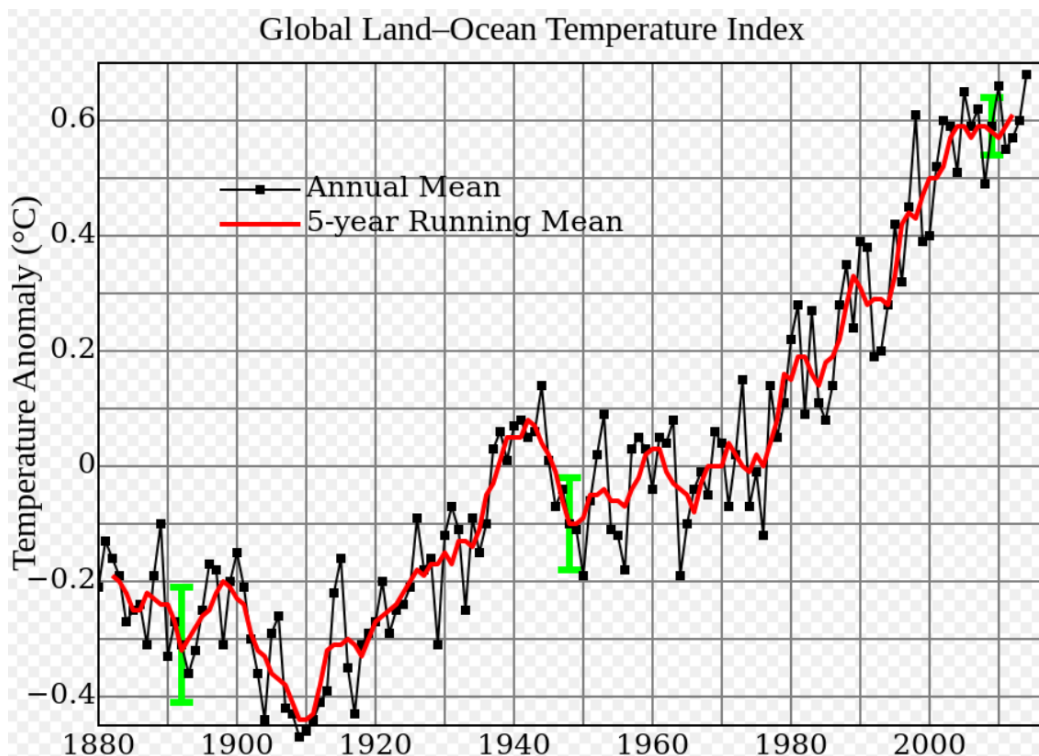


Bild1 Darstellung der globalen Temperatur-Anomalie aus [WIKIPEDIA](#)

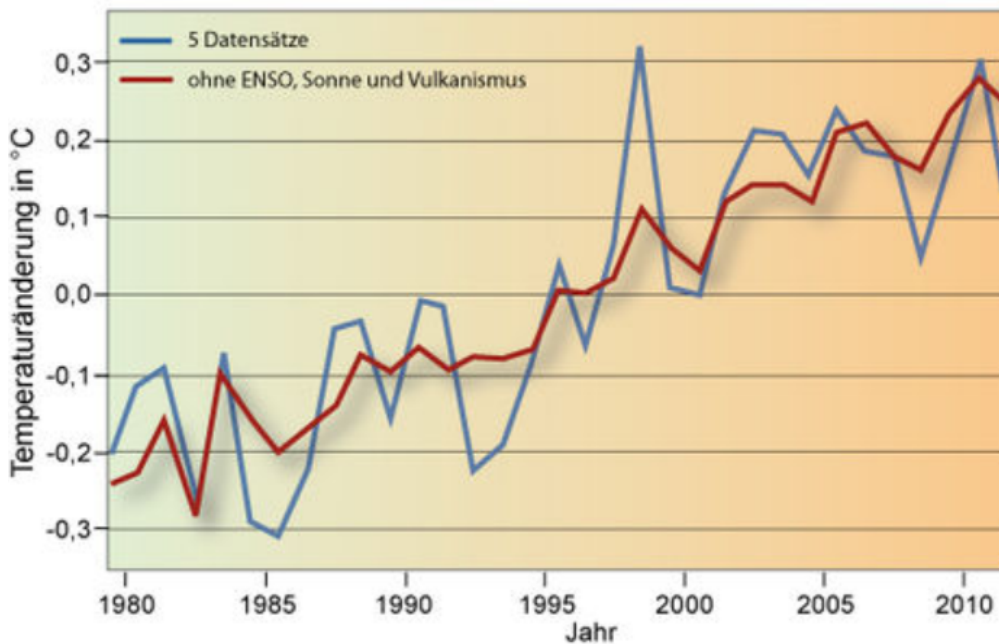


Abb. 3: Globale Temperaturentwicklung nach fünf Datensätzen (blau) und unter Herausrechnung der Einflüsse der Solarstrahlung, von ENSO und Vulkanausbrüchen (rot).

Bild2 Darstellung vom wiki.bildungsserver über den CO2- Einfluss auf die Temperatur

Solche Darstellungen mit stark gedehnter Temperatur-Achse und Mittelwertverdichtung „verstellen“ jedoch den Blick auf die wirklichen Klima-Variabilitäten und „wischen“ wichtige Problem-Details der Temperaturkurven beiseite.

Die „Temperaturtreppen“

Bereits im Bild 1 lassen sich deutlich Sprünge im Verlauf erkennen. Löst man diese weiter auf, kommt man zur Überlegung, wie CO2 als vorwiegendes Forcingelement dazu führen soll. In einem [Flyer](#) des Vereins [Klimanotizen](#) finden sich dazu Darstellungen und in der Publikation [Temperature Trends – an alternative analysis that](#)

challenges the consensus-view von Professor Raunsø Jensen steht Detaillierteres. Doch soll eine Ursachenfindung nicht Inhalt dieses Artikels sein.

Im Artikel über die „Fühlbarkeit des Klimawandels“ wurde vom Autor beispielhaft gezeigt, wie solche Temperaturkurven aussehen und dass sich bei detaillierter Betrachtung in Deutschland (nach Meinung des Autors) kein Anlass für einen Klimaalarm ergibt. Die Grafiken in diesem Artikel waren durch die WEB-Umsetzung leider etwas klein geraten und damit unscharf. Zudem wurde von Bloglesern bemängelt, dass die Datenquellen nicht vollständig nachvollziehbar wären.

Deshalb hat der Autor ganz aktuell vom DWD-Datenserver Langfrist-Klimadaten mit Tagesauflösung geladen und grafisch aufbereitet, um in der Detaillierung zu zeigen, dass die „beschworene“ Korrelation zwischen

stetig steigendem CO₂ und Temperaturverlauf über sehr weite Zeitstrecken nicht existiert – und dass es im Verlauf Sprünge gibt, welche (neben deutlichen Zyklen) auf stärkere, andere Ursachen für die Temperaturveränderungen schließen lassen. Zudem wird damit auch wohl jedem klar, warum Klimaalarm-Zeitreihen oft um 1980 beginnen (wie Bild 2) und dass die angeblich den Untergang beschwörende 2 °C Welt-Erwärmung nicht einmal im temperaturschwankungsarmen Deutschland außerhalb natürlicher Schwankungen liegen.

Dargestellt wurden dazu der Temperatur-Mittelwert und parallel die Maximalwerte, welche besonders Klimawandel-auskunftsträchtig, d. h. stark erhöhend sein müssten.

Hinweis: In fast allen Datensätzen sind um 1945 -46 erhebliche Datenfehler enthalten. Soweit diese

eindeutig waren, wurden Datenfehler entfernt (aber nicht homogenisiert).

Hohenpeißenberg

DWD-Datensatz

Hohenpeißenberg

**(Bayern, Stations-
ID 2290) mit**

Tagesauflösung,

Bereich 1781 – 2014

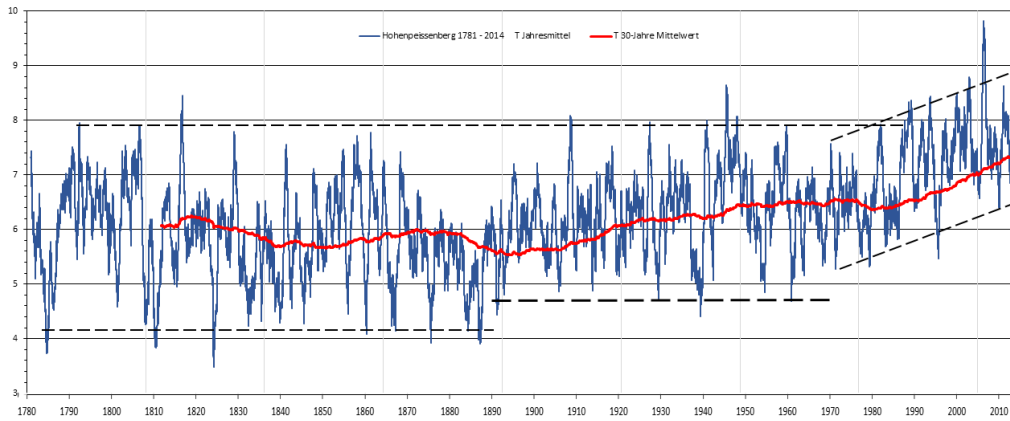


Bild 3.1

Hohenpeißenberg

Verlauf der

Temperatur-

Mittelwerte 1781 –

2014

- **Blau: Temperatur Jahresmittel (linke**

Temperaturskala 3 ... 10 °C)

- Rot: Temperatur 30-Jahresmittel (linke

Temperaturskala 3 ... 10 °C)

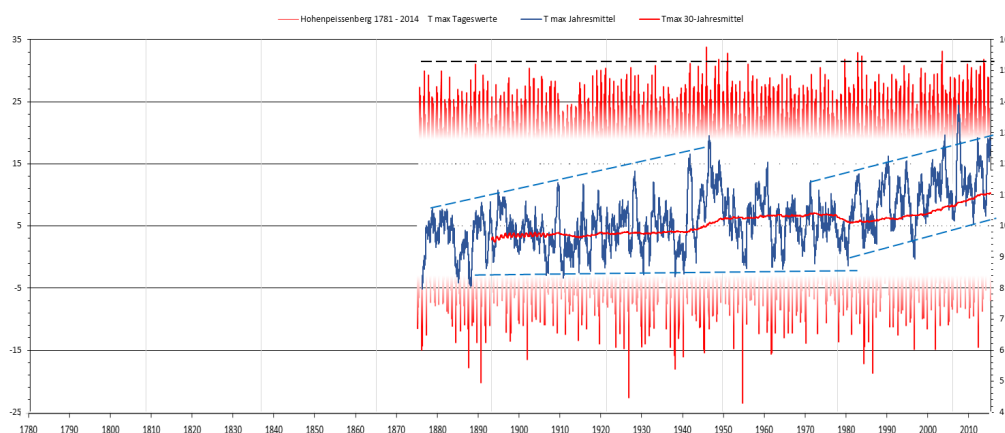


Bild 3.2

Hohenpeißenberg

(Bayern) Verlauf

der Temperatur-

Maximalwerte 1880 –

2014

- **Rot:**

Maximaltemperatur

Tageswerte (linke

Temperaturskala -25

... +35 °C)

- **Blau:**

Maximaltemperatur

Jahresmittel

(rechte

Temperaturskala 4 ...

16 °C)

- **Rot:**

Maximaltemperatur

30-Jahresmittel

(rechte

Temperaturskala 4 ...

16 °C)

Zugspitze

DWD -

Datensatz

Zugspitze

(Stations

-ID 5792)

mit

Tagesaufl

ösung,

Bereich

1900 –

2014

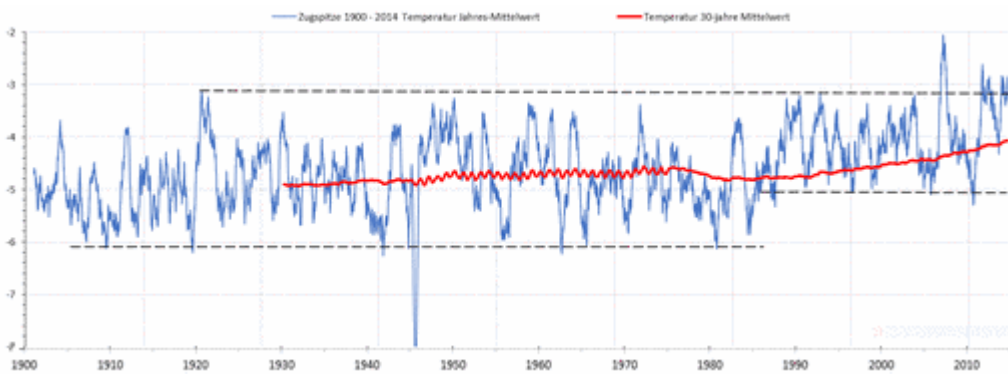


Bild 4.1

Zugspitze

***Verlauf
der
Temperatu
r-
Mittelwer
te 1900 –***

2014

- **Blau:**

Temperatu

r

Jahresmit

tel

(Linke

Temperatu

rskala - 8

... - 2 °C)

- **Rot:**
Temperatu
r 30-
Jahresmit
tel
(Linke

Temperatu rskala - 8 ... - 2 °C)

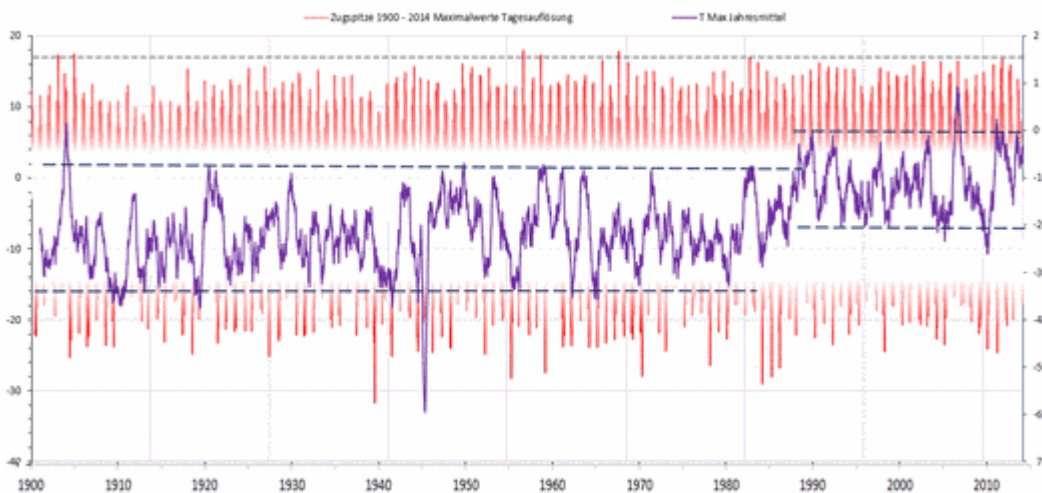


Bild 4.2

Zugspitze

Verlauf

der

Temperatu

r-

***Maximalwerte
1900
– 2014***

- **Rot:**

Maximalwerte

**Temperatur
Tageswerte
e (Linke
Temperatu
rskala
-40 ...**

+20 °C)



Violett:

Maximale

temperatur

Jahresmittel

(rechte

Temperatur
skala - 7

... +2 °C)

Pots

dam

DWD -

Date

nsat

z

Pots

dam

(sta

tion

S - ID

3987

)

mit

Tag

sau f

Lösu

ng,

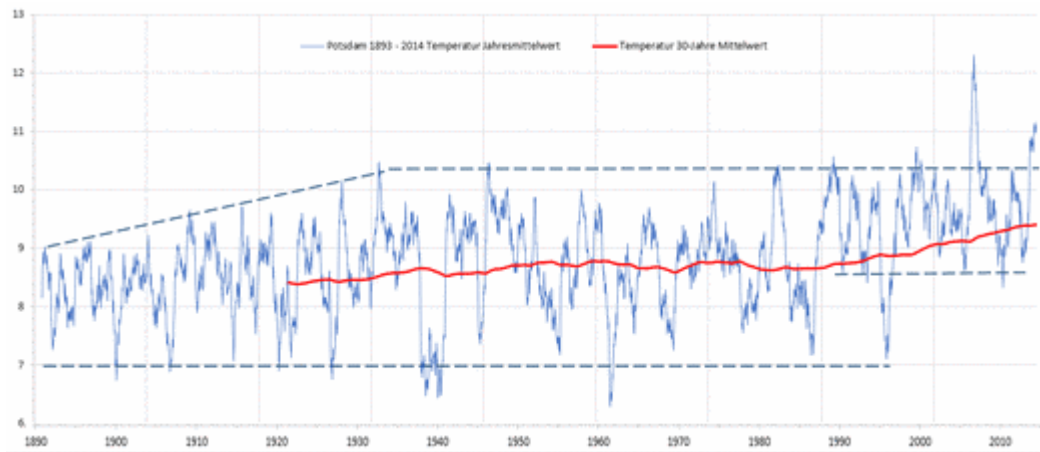
Bere

ich

1893

—

2014



Bild

5.1

Pots

dam

Verz

auf

der

Temp

erat

ur -

Mitt

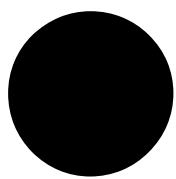
eLwe

rte

1893

—

2014



Blau



Temp

erat

ur

Jahr

esmi

ttel

(uin

ke

Temp

erat

ursk

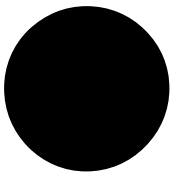
ala

+6

||||

+13

° C)



Rot:

Temp

erat

ur

30 -

Jahr

esmi

tte

(lin

ke

Temp

erat

ur sk

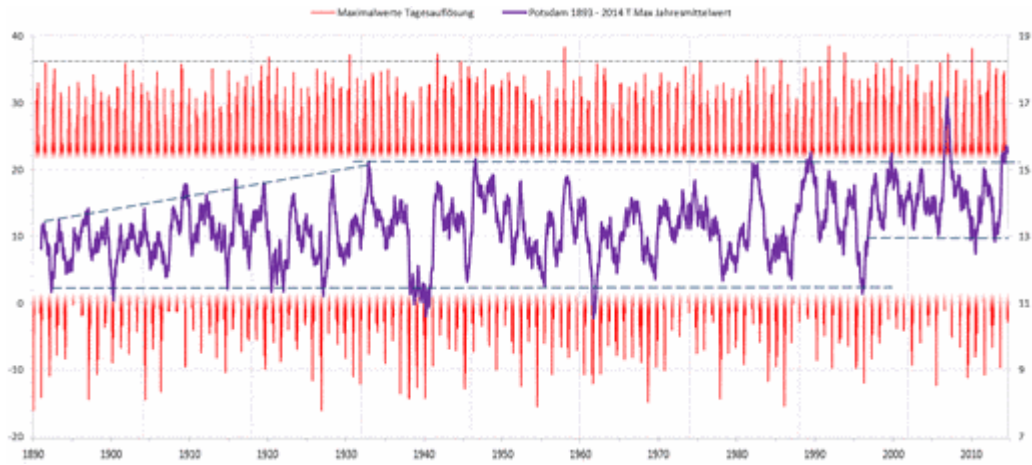
a la

+6



+13

°C)



Bild

5.2

Pots

dam

verl

auf

der

Temp

erat

ur -

Maxi

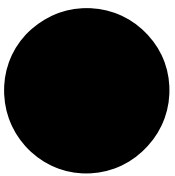
malw

erte

1893

—

2014



Rot:

Maxi

mal t

empe

ratu

r

Tage

swere

te

(uin

ke

Temp

erat

ursk

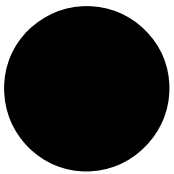
ala

- 20

■ ■ ■ ■

+ 40

° C)



Viol

ett:

Maxi

mal t

empe

ratu

r

Jahr

esmi

ttel

(rec

hte

Temp

erat

ursk

ala

+7 ...

+19

° C)

Br

em

en

DW

D

-

Da

te

ns

at

Z

Br

em

en

(S

ta

ti

on

S

I

TD

69

1

)

mi

七

Ta

ge

sa

uf

Lo

su

ng



Be

re

ic

h

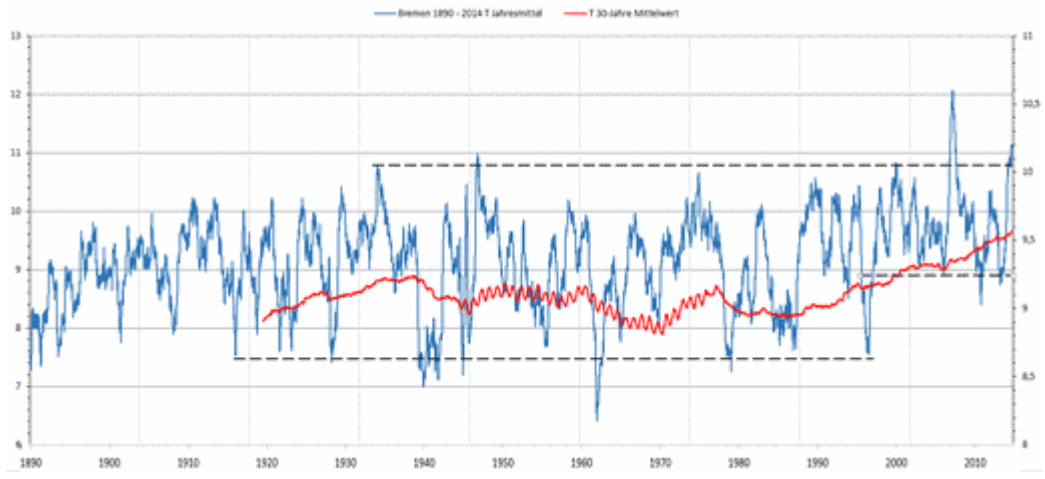
18

90



20

14



Bí

zd

6

,

1

Bir

e*m*

en

ve

rz

au

f

***d*/e**

r

Te

mp

er

at

ur



Mi

tt

eZ

we

rt

e

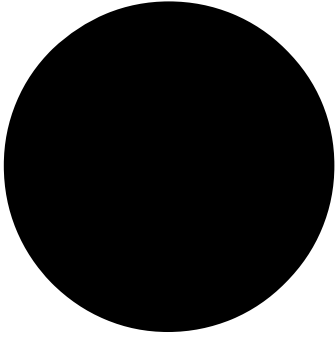
18

90



20

14



Bl

au



Te

mp

er

at

ur

Ja

hr

es

mi

七

七

erl

(r

in

ke

Te

mp

er

at

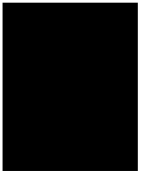
ur

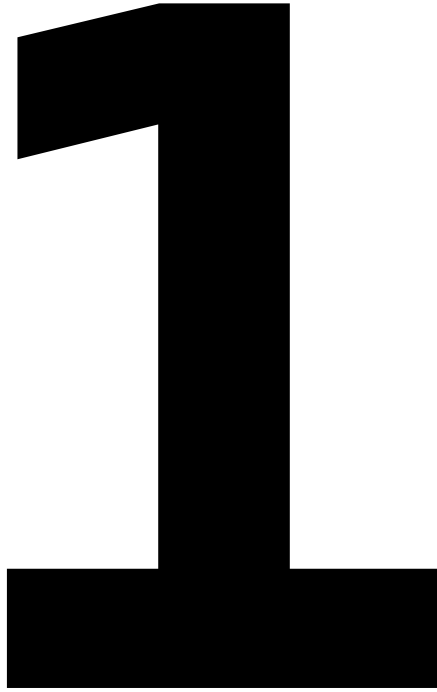
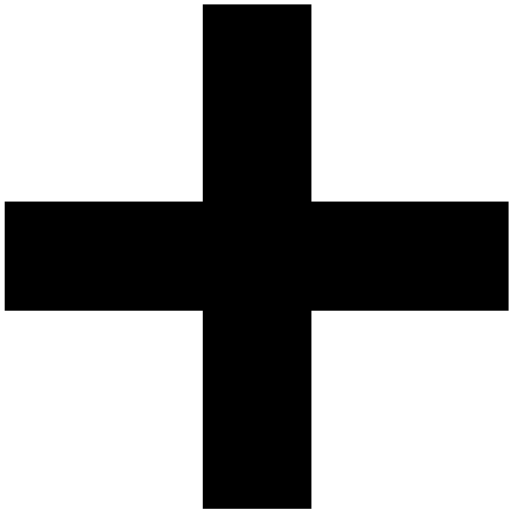
SK

al

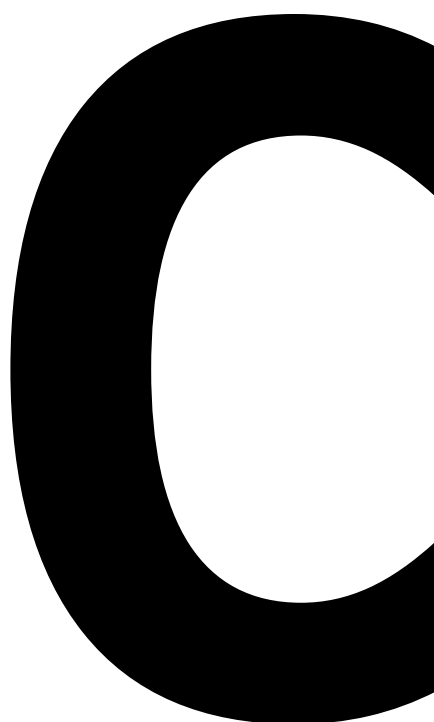
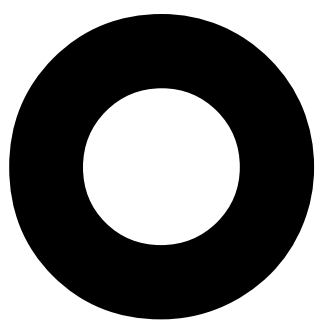
a

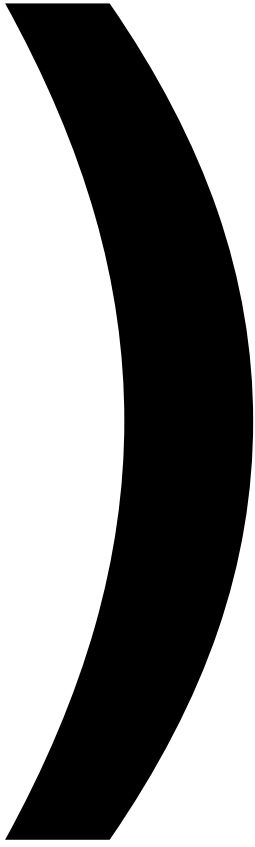
+6

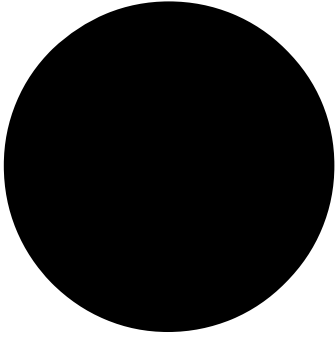




3







Ro

七

：

Te

mp

er

at

ur

30



Ja

hr

es

mi

七

七

erl

(r

ec

ht

e

Te

mp

er

at

ur

SK

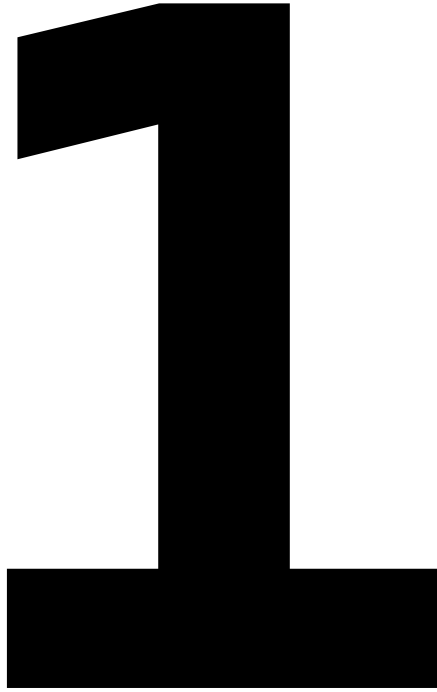
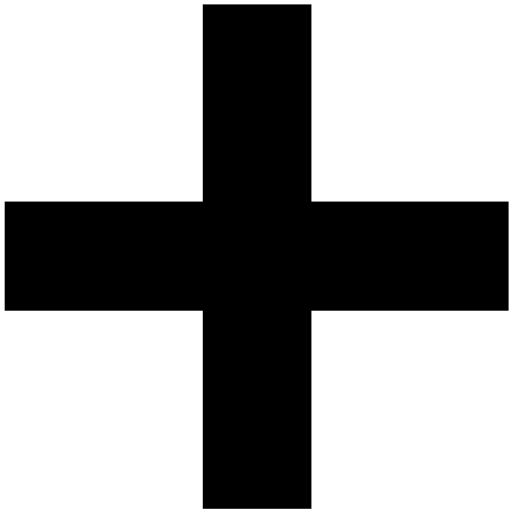
al

a

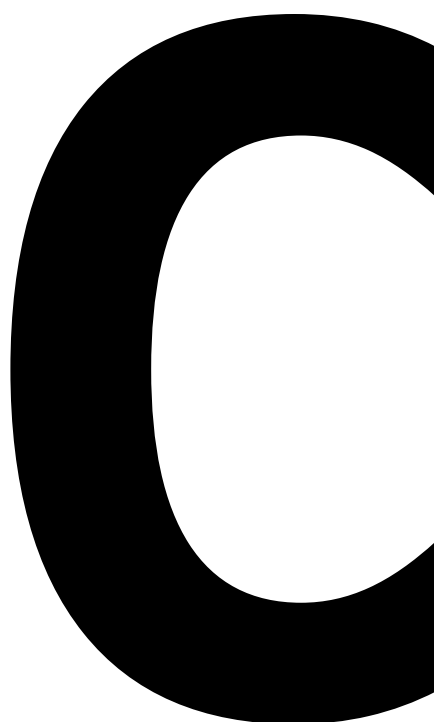
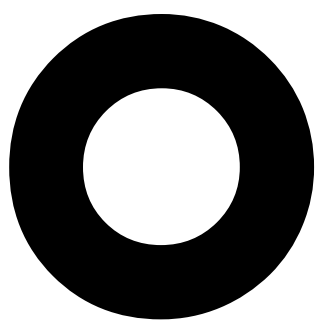
+

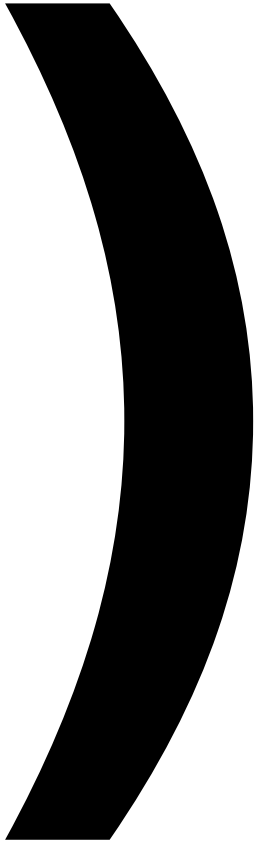
8

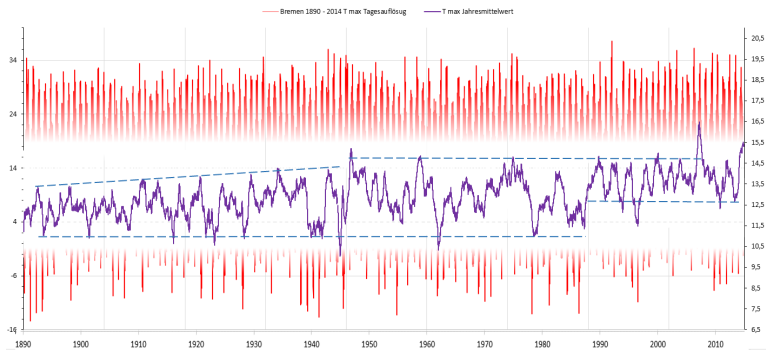




1







Bí

zd

6

,

2

Bir

e*m*

en

ve

rz

au

f

***d*/e**

r

Te

mp

er

at

ur



Ma

Xi'

ma

zw

er

***t*e**

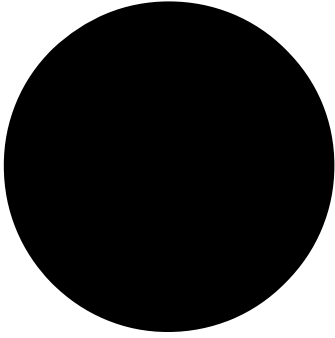
18

90



20

14



Ro

七

：

Ma

X

i

ma

U

U

em

pe

ra

tu

r

Ta

ge

S w

er

te

(r

in

ke

Te

mp

er

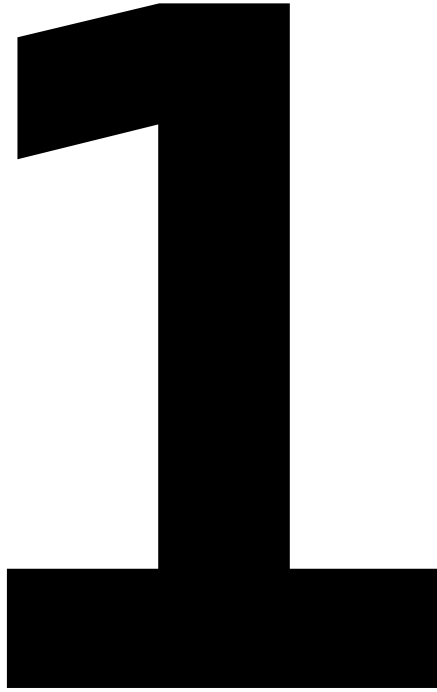
at

ur

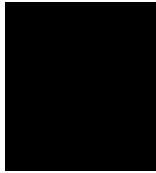
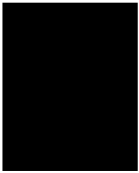
SK

al

a

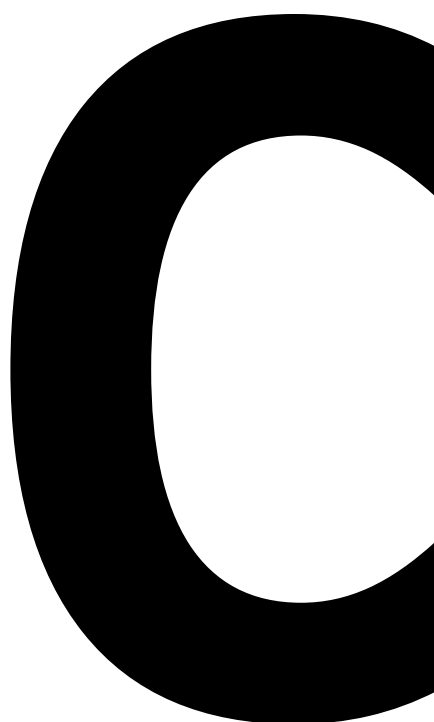
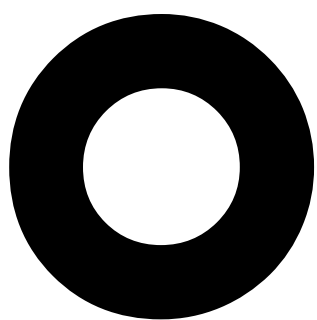


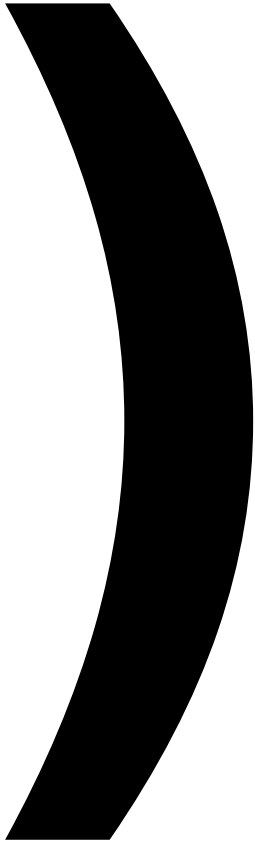
6

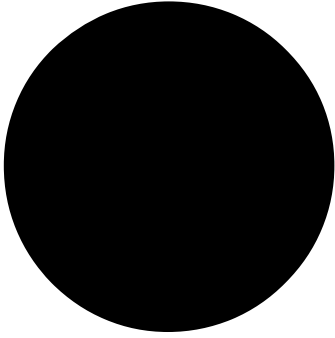


+ 4

0







v

i

ol

et

七

：

Ma

X

i

ma

U

U

em

pe

ra

tu

r

Ja

hr

es

mi

七

七

erl

(r

ec

ht

e

Te

mp

er

at

ur

SK

al

a

+6

5

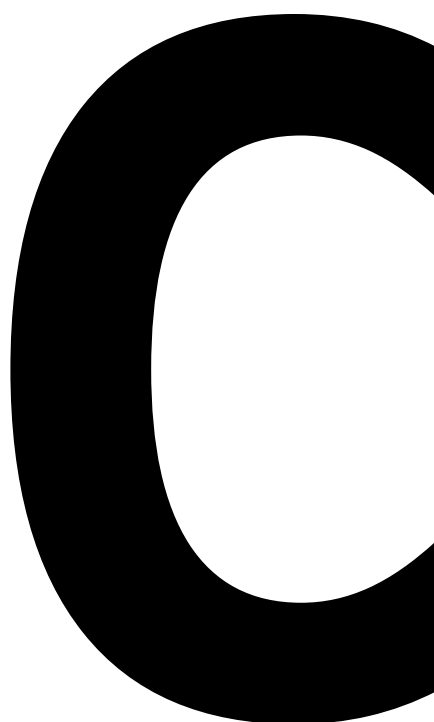
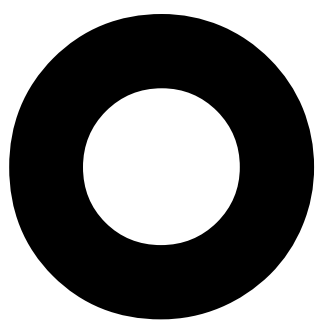


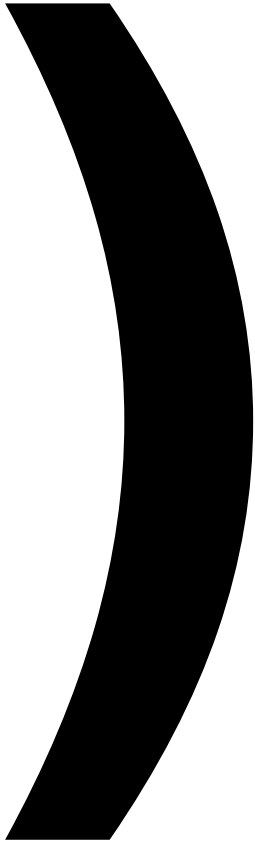
+2

0

,

5

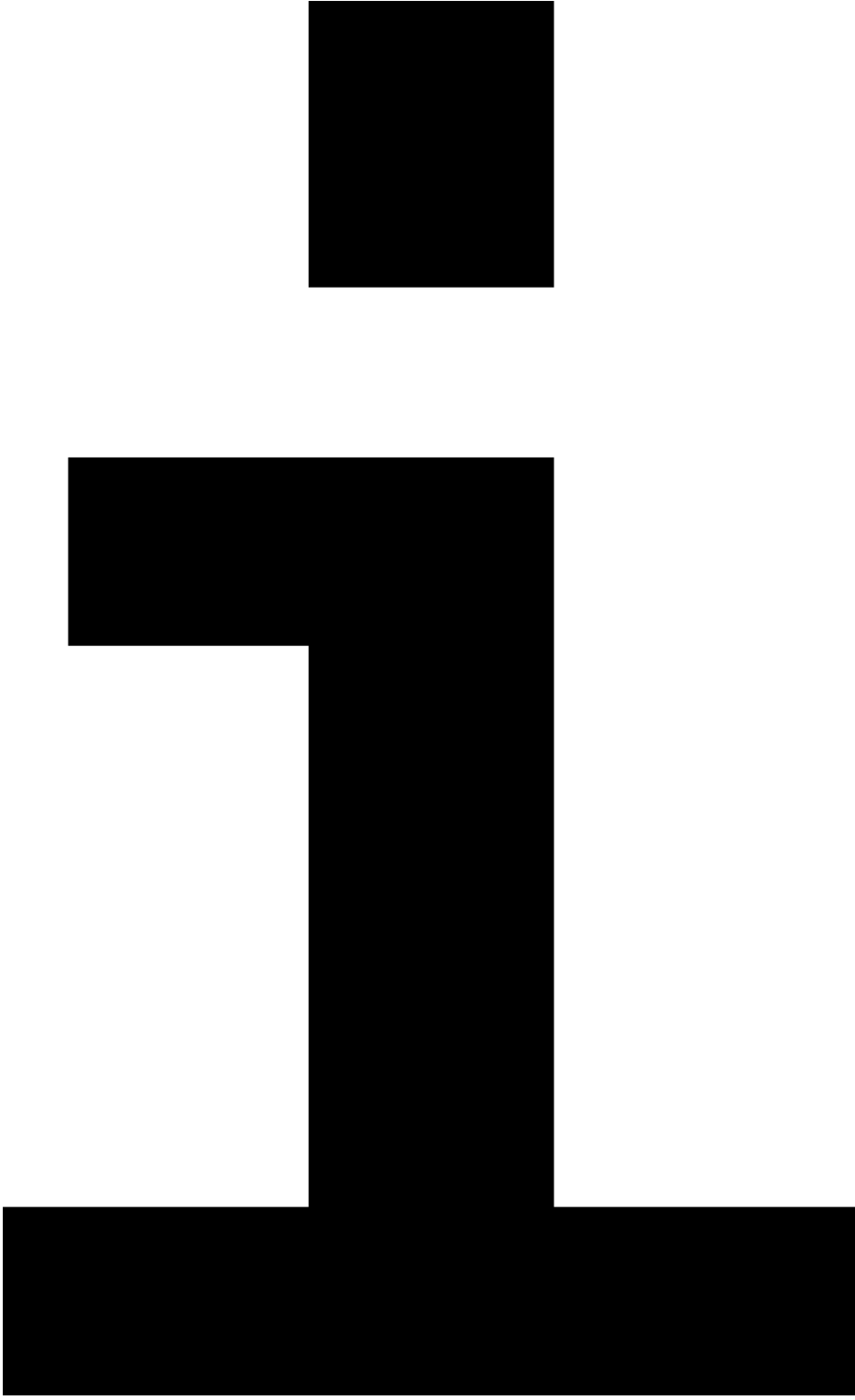


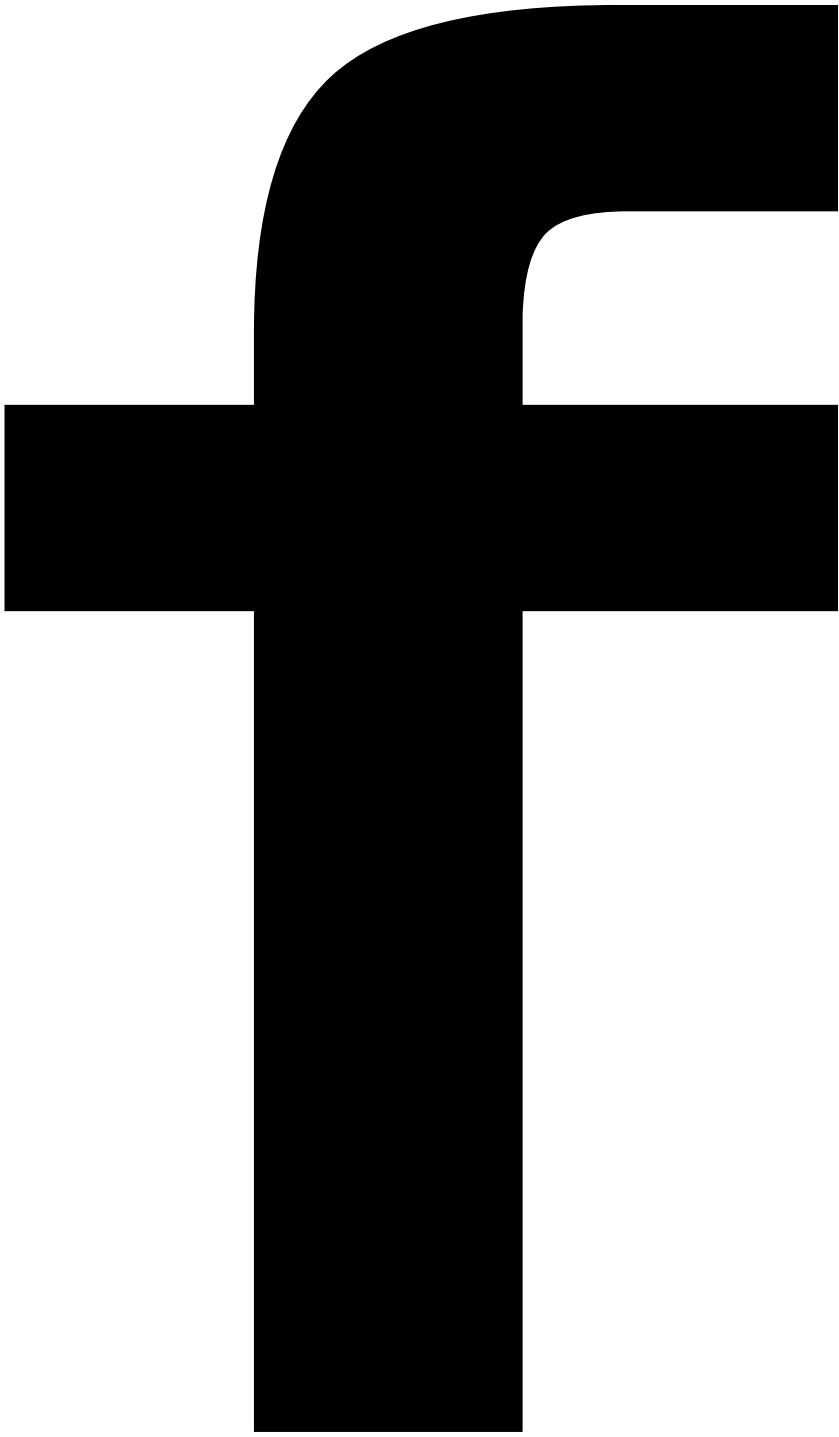


G

r

e





S

w

sa

J

Q

D

w

D



D

sa



e

n

S

sa





G



e





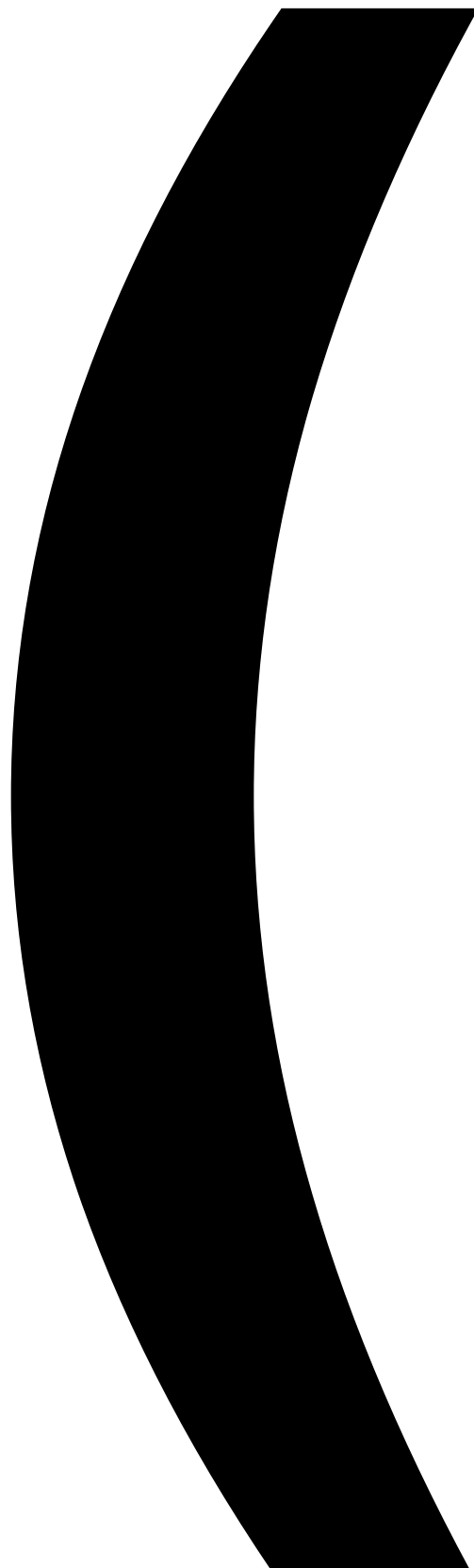
S

w

sa

J

Q



S



sa



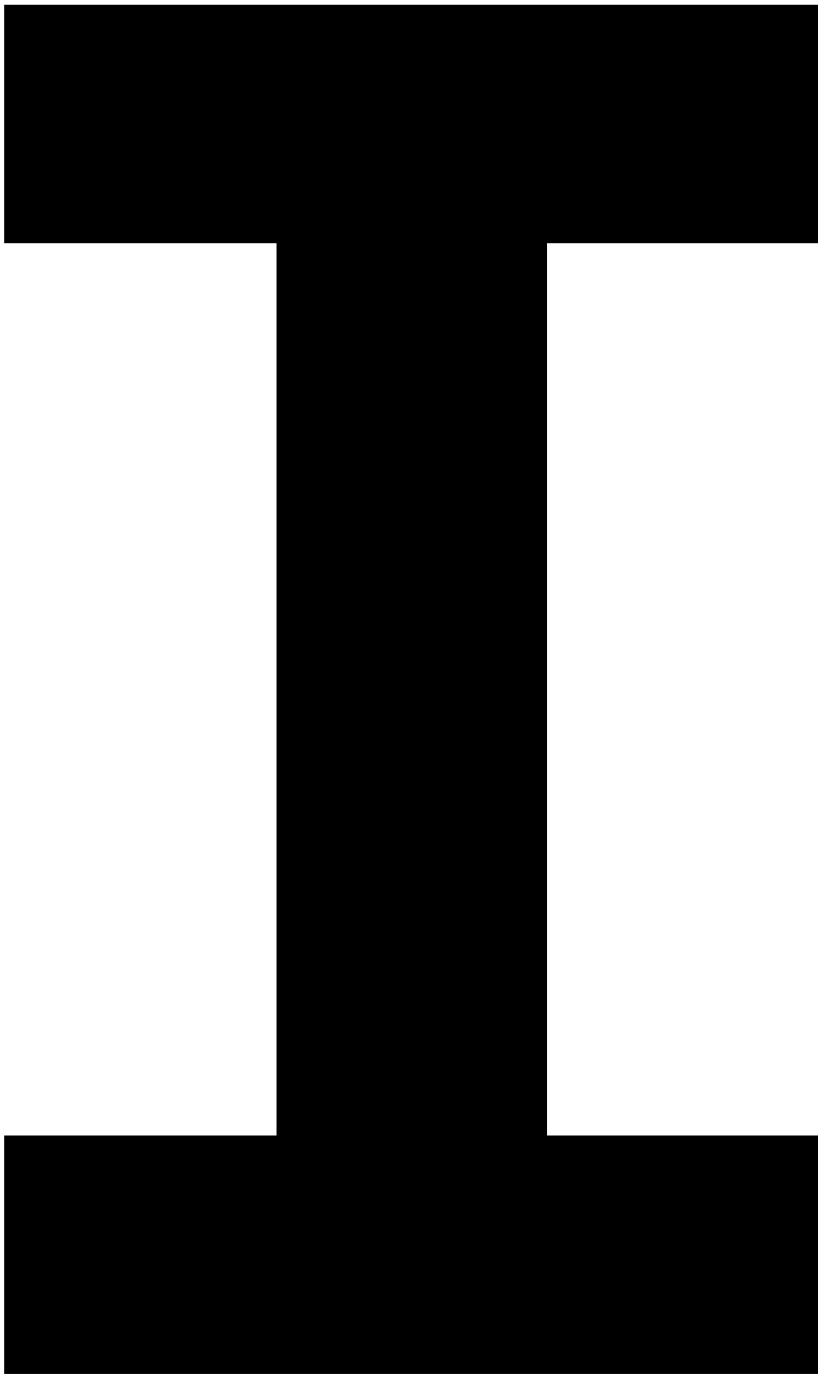




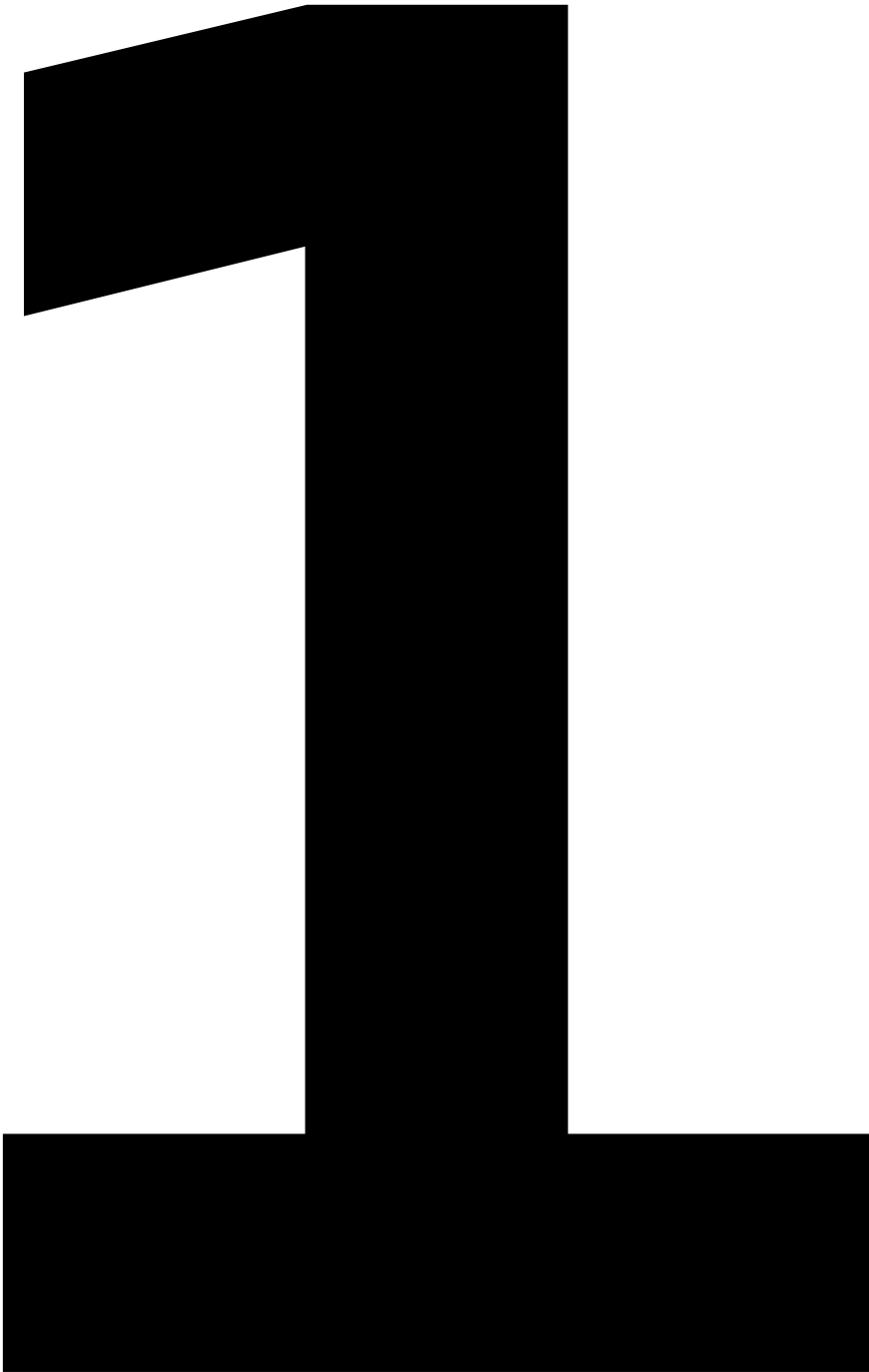
n

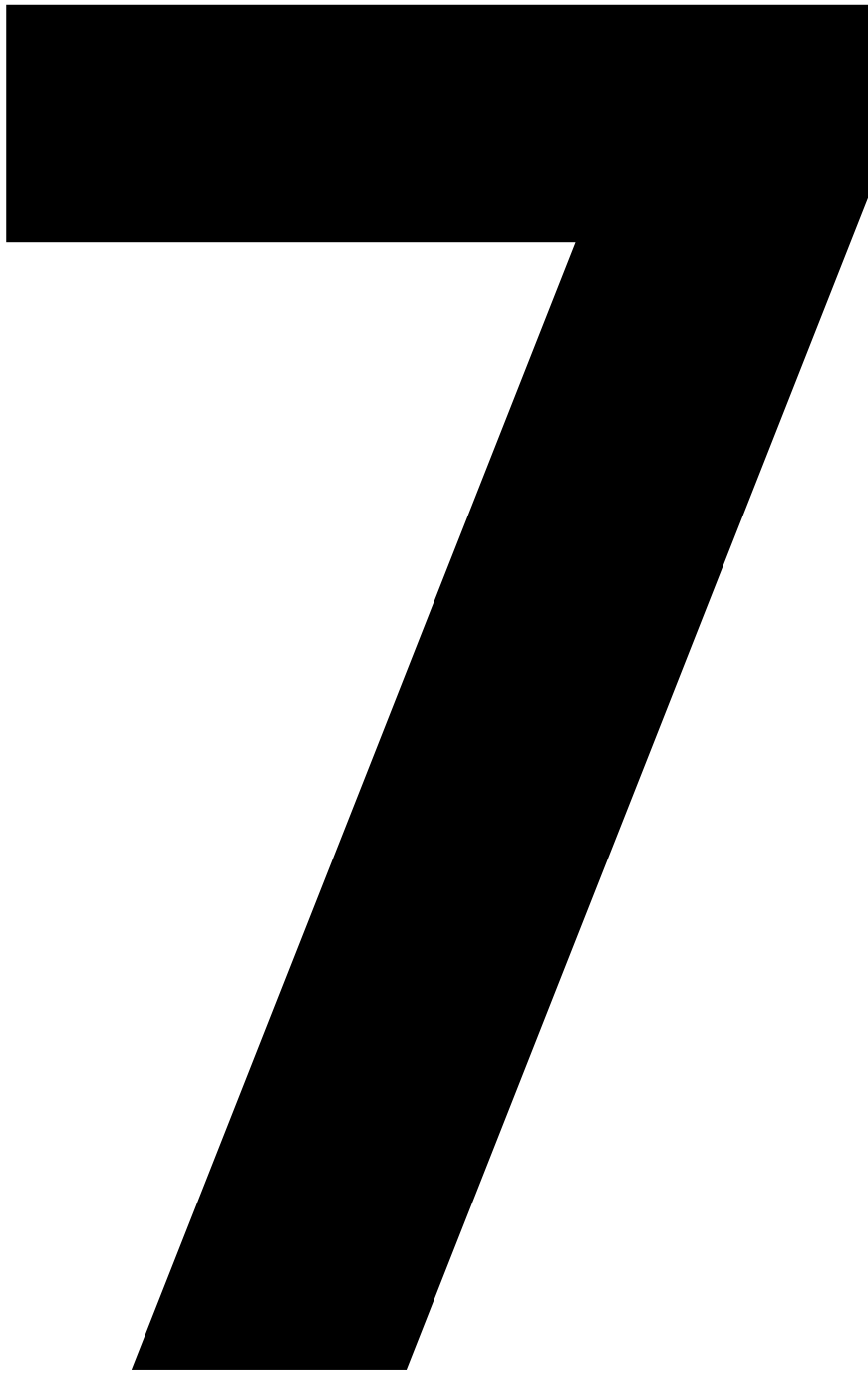
S



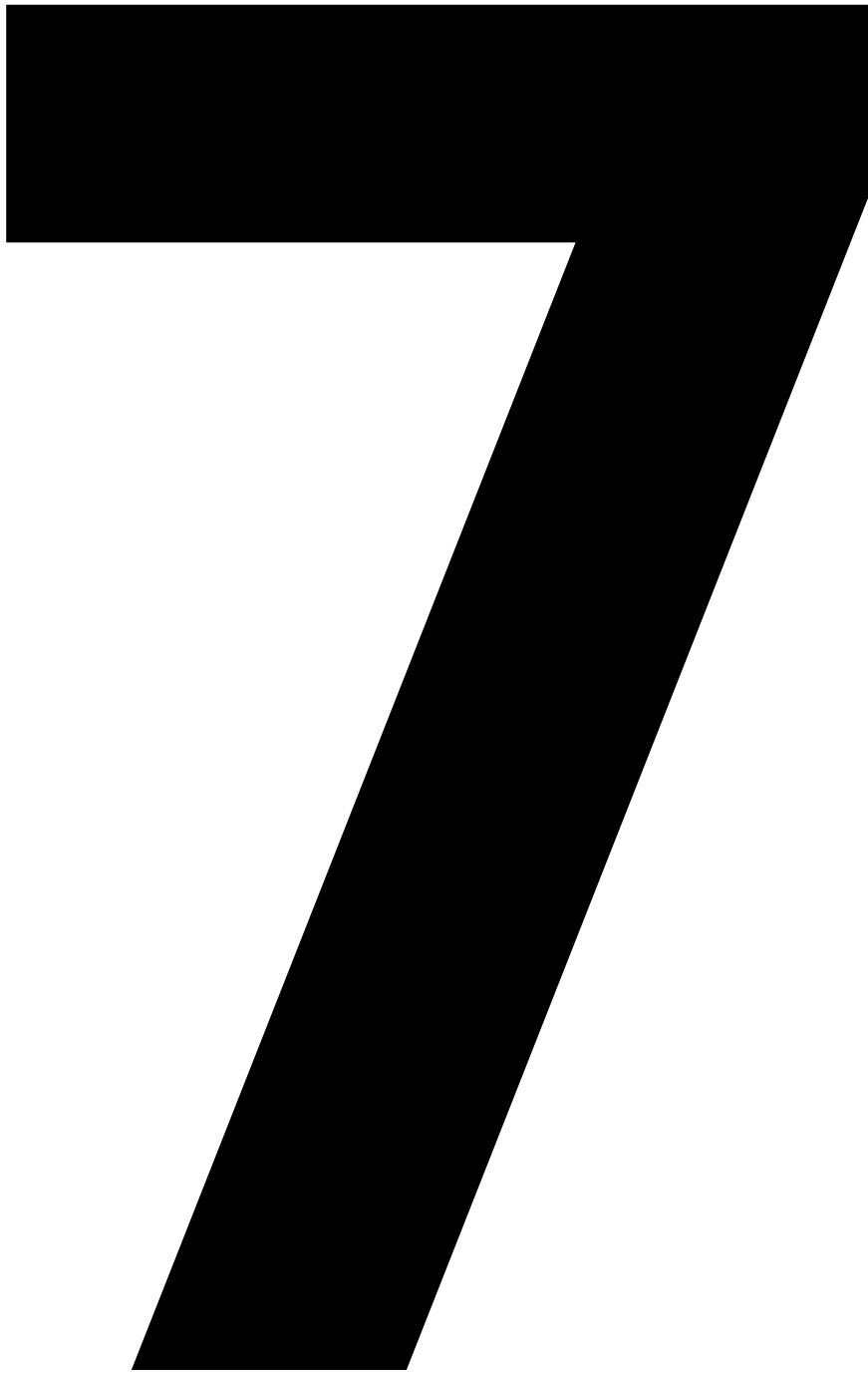


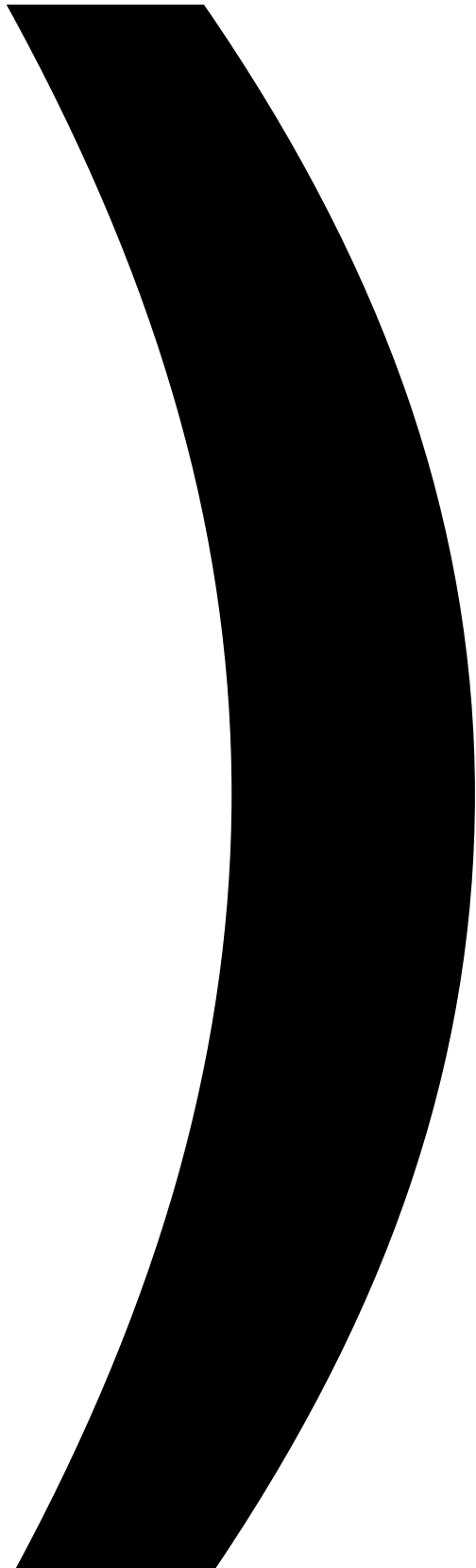
D





5

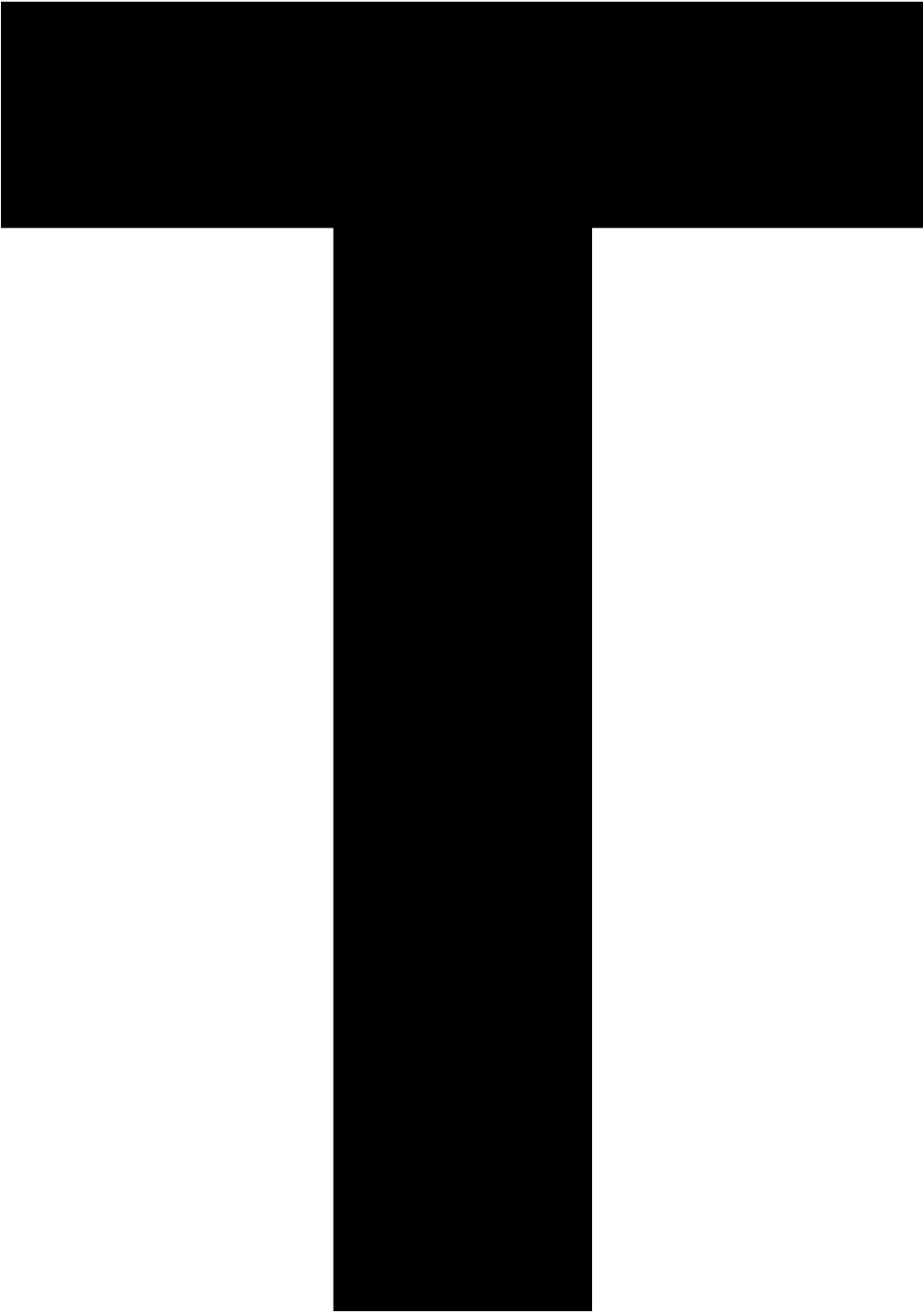




m







sa

Q

e

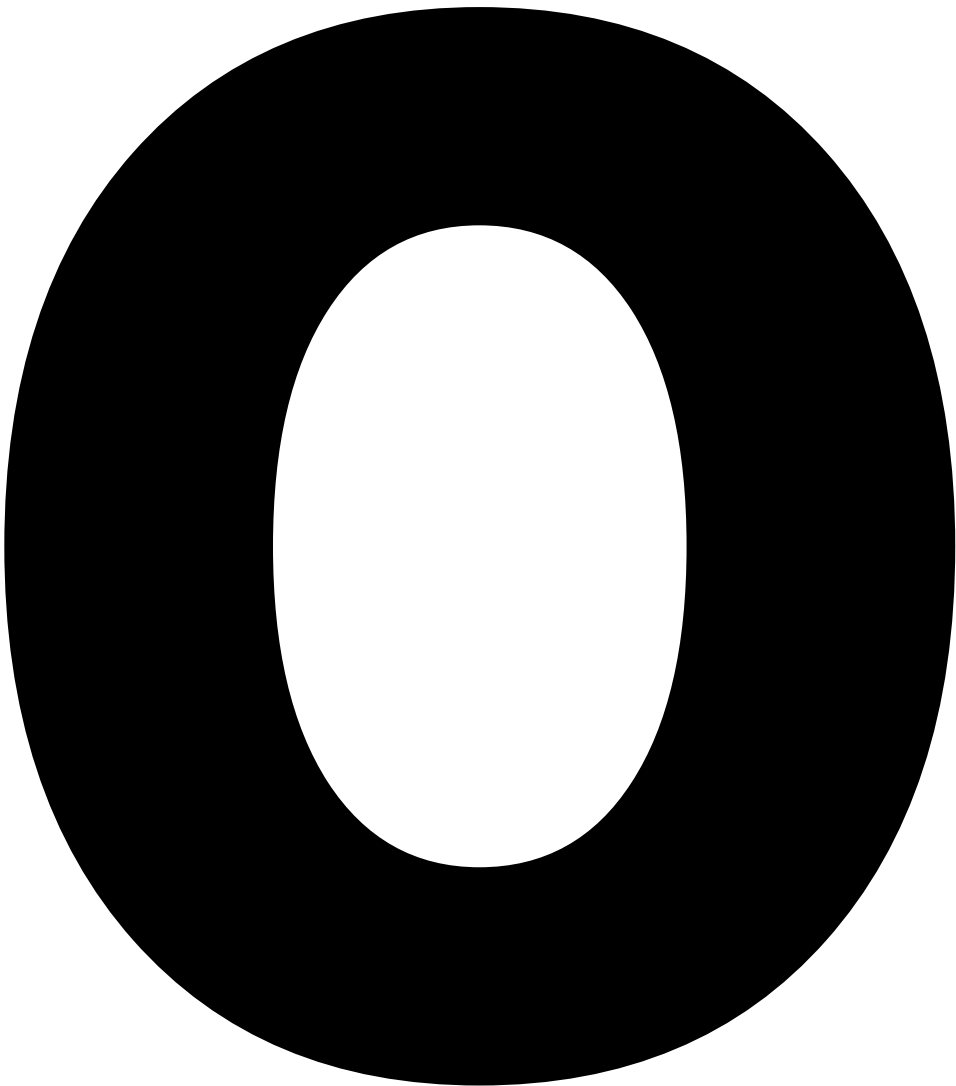
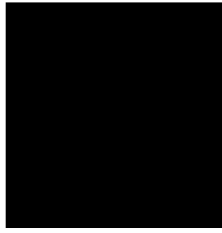
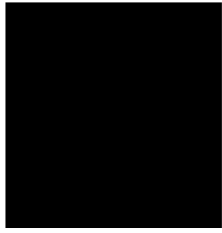
S

sa

u



J



S

u

n

Q



B

e

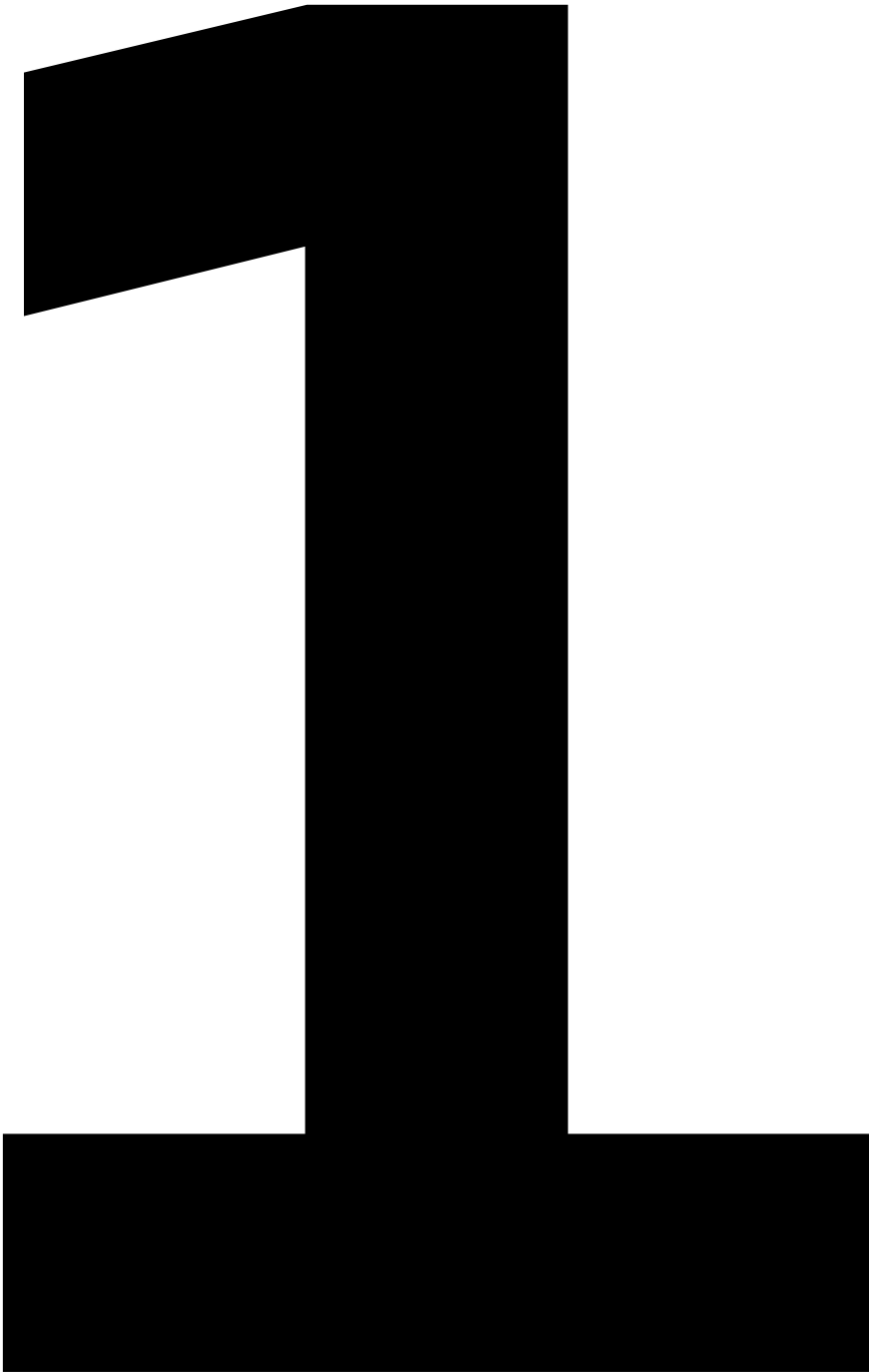


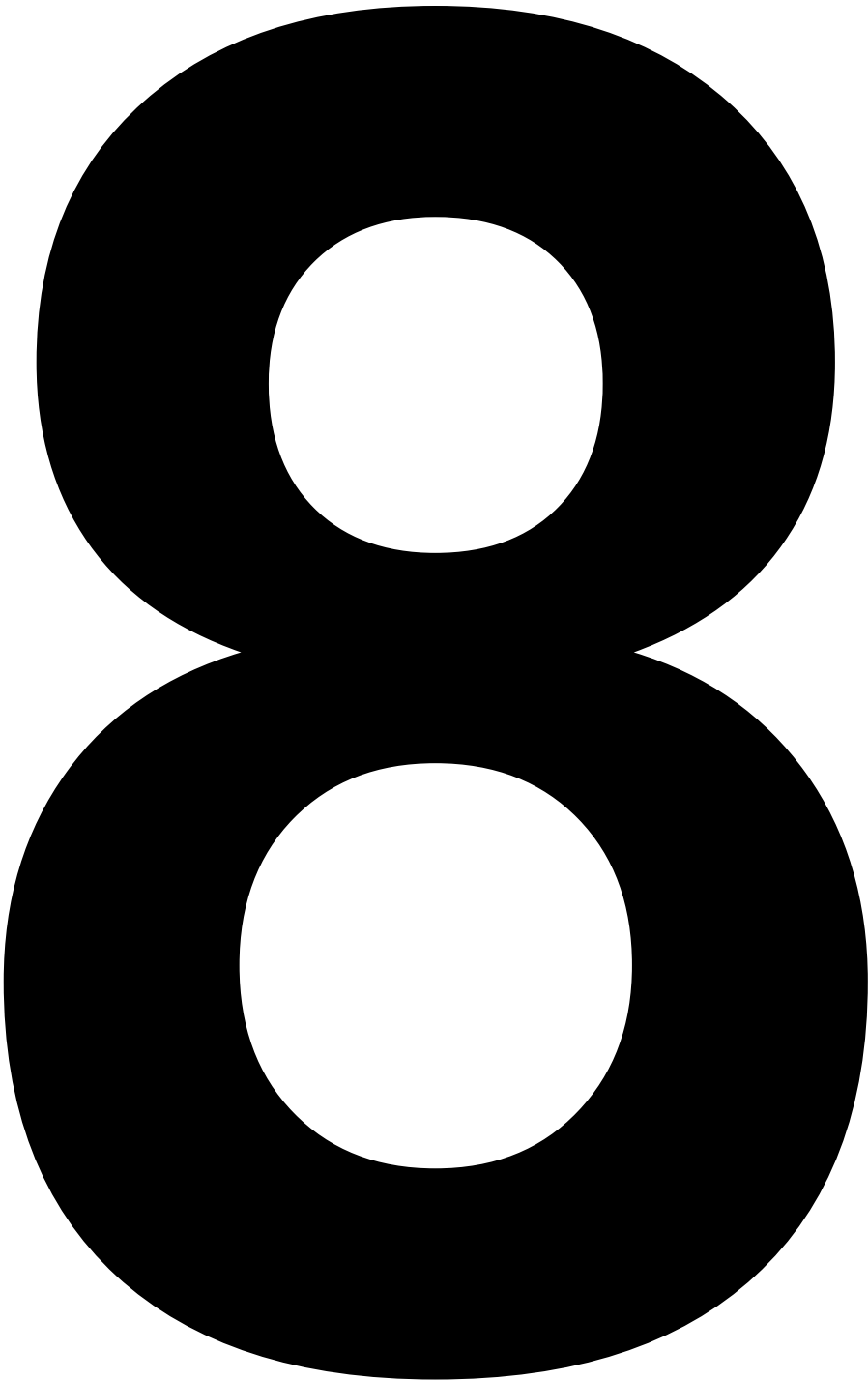
e



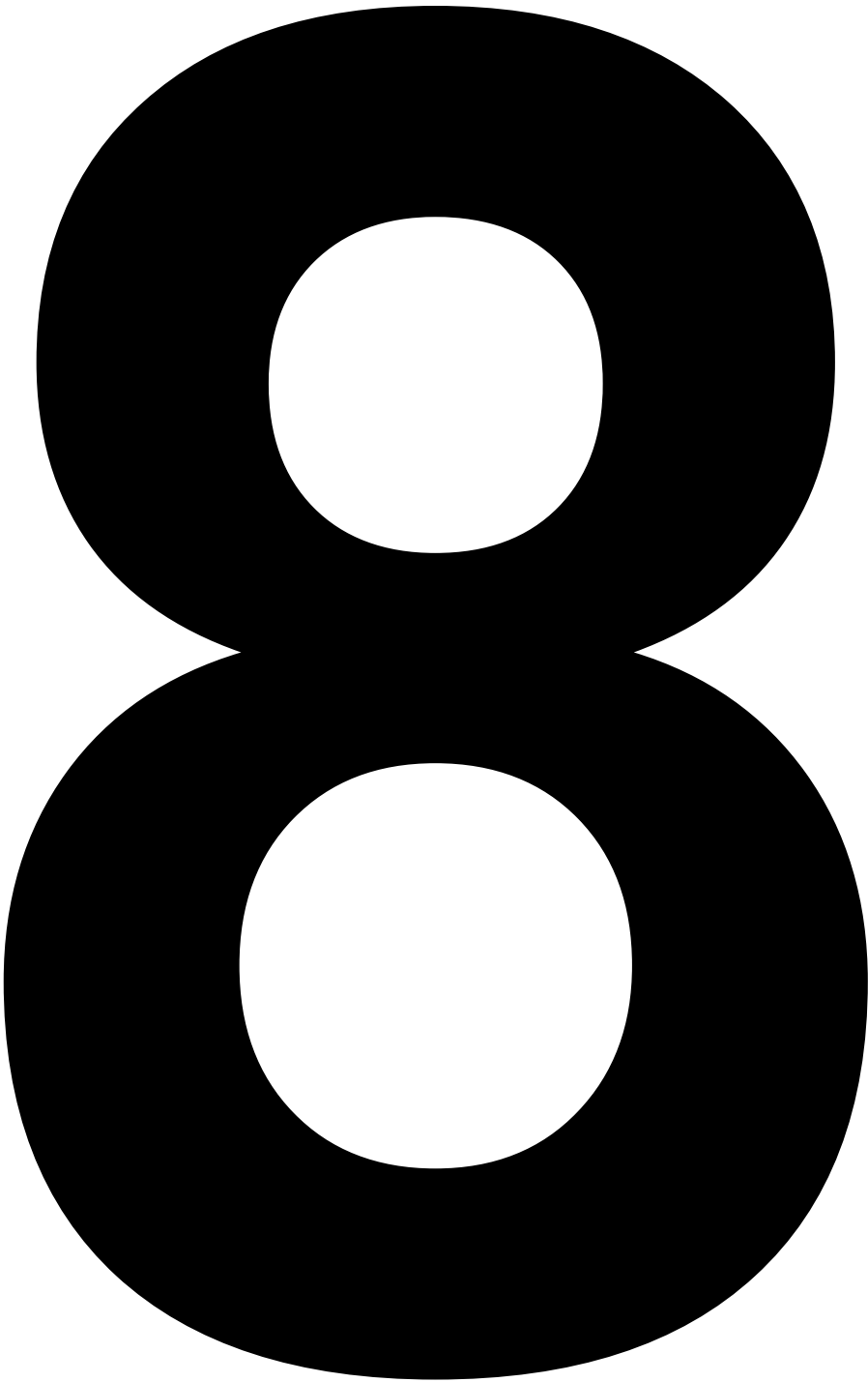
C

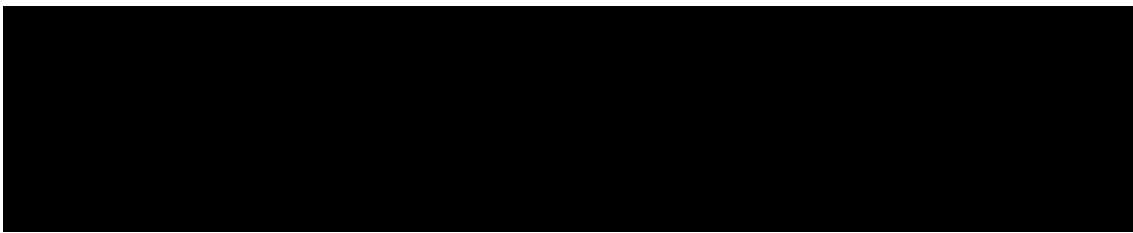
h



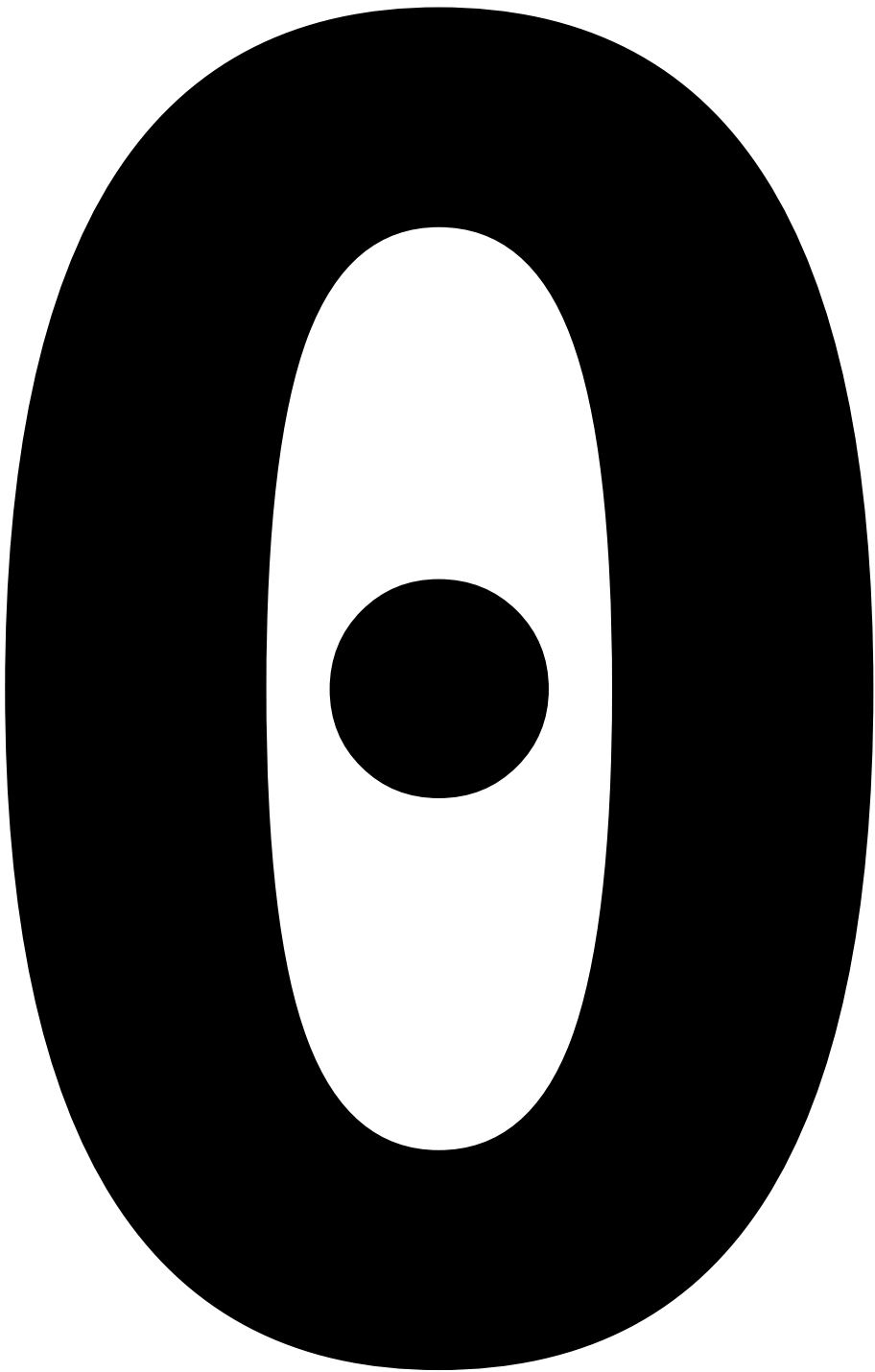


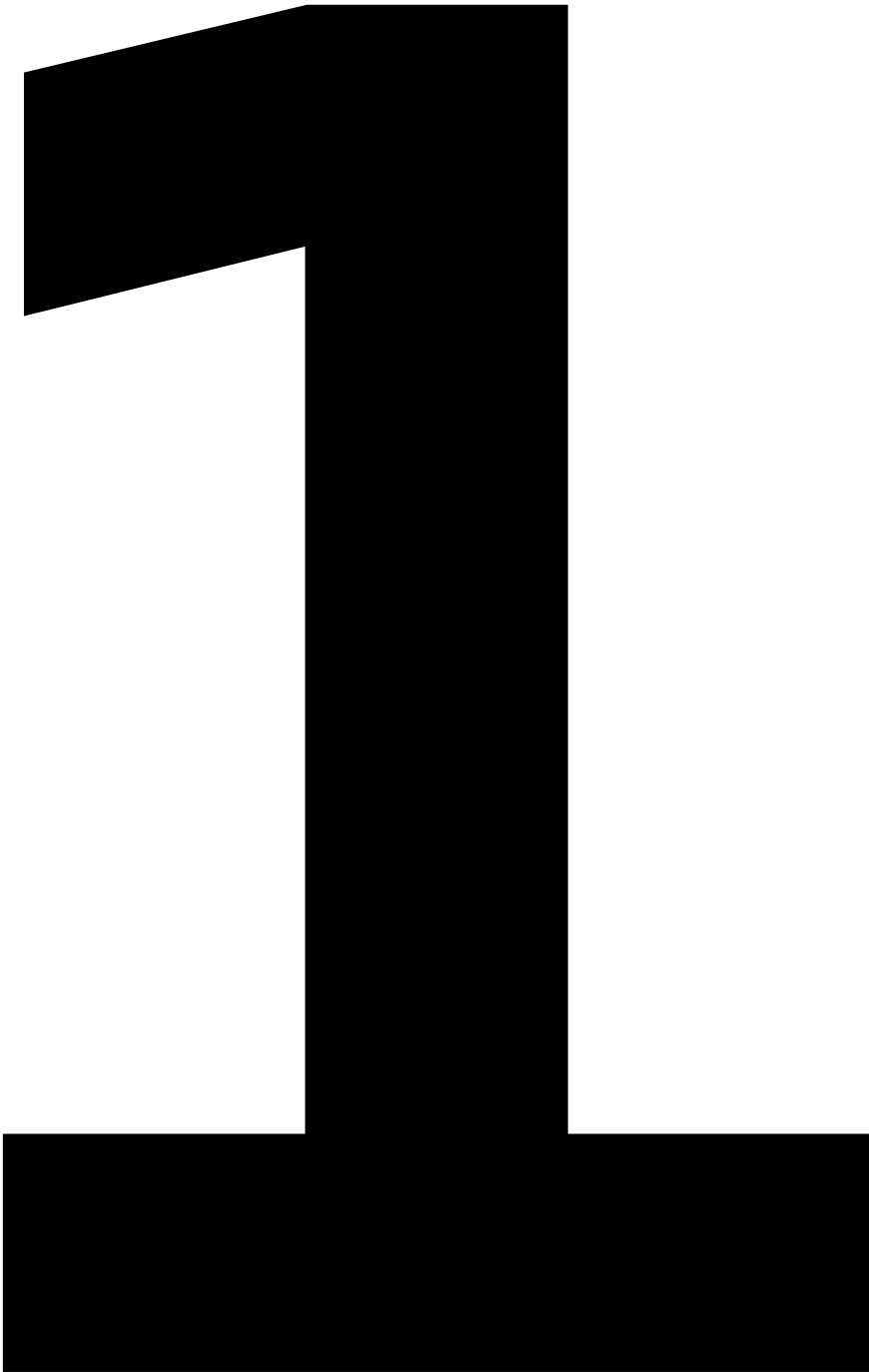
9



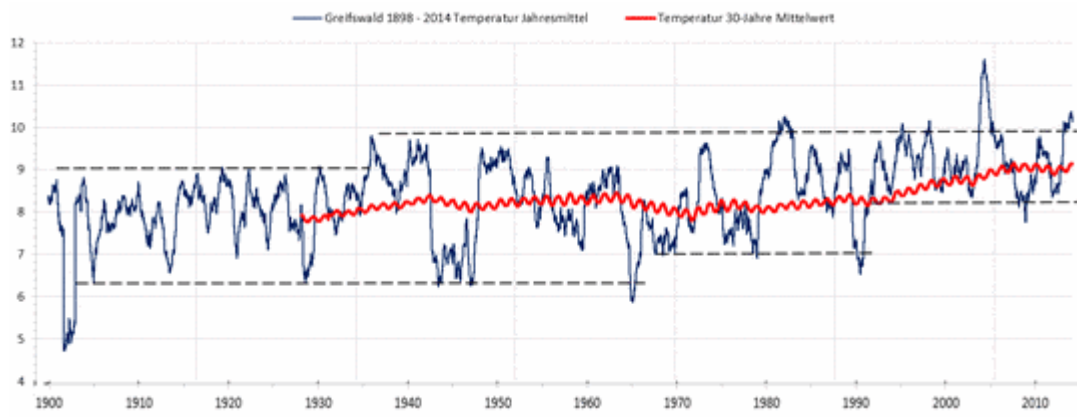


2

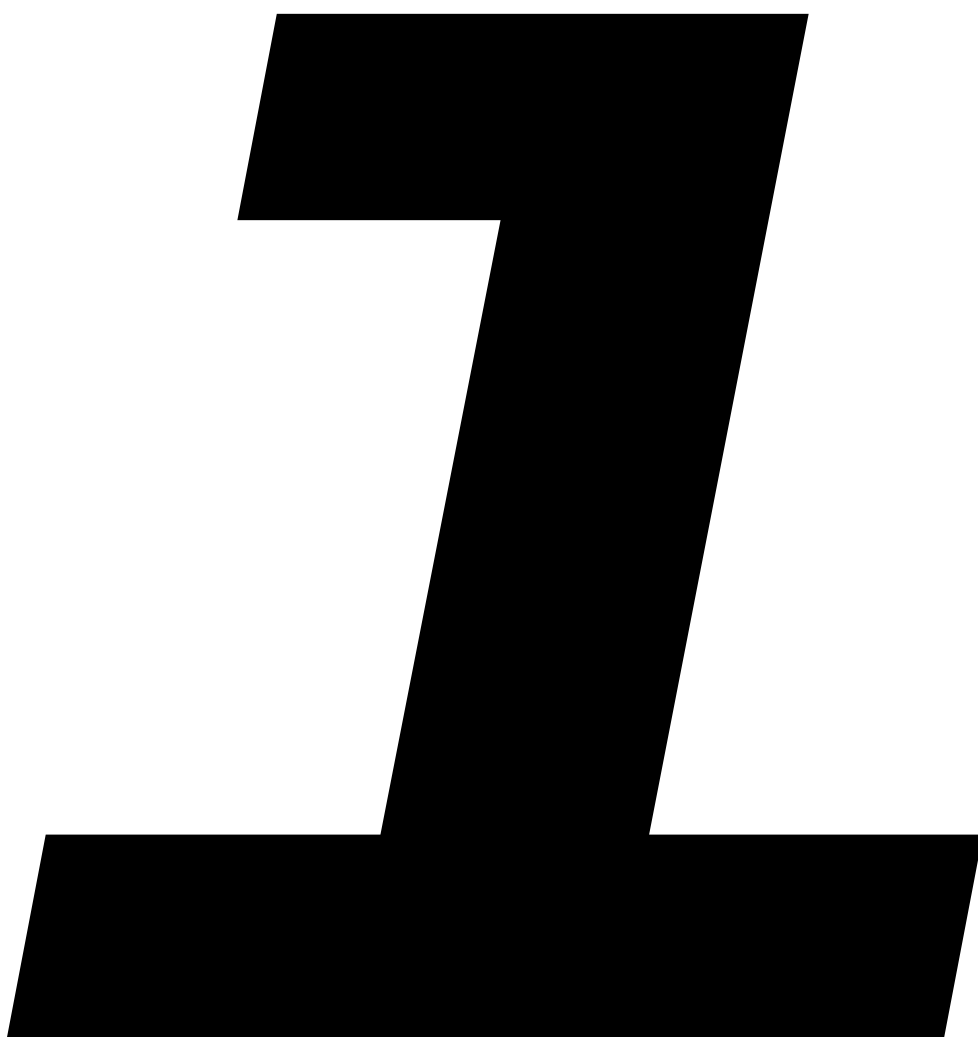
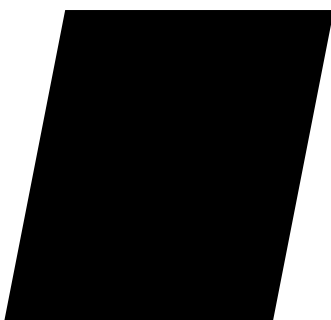




4



B



J

o



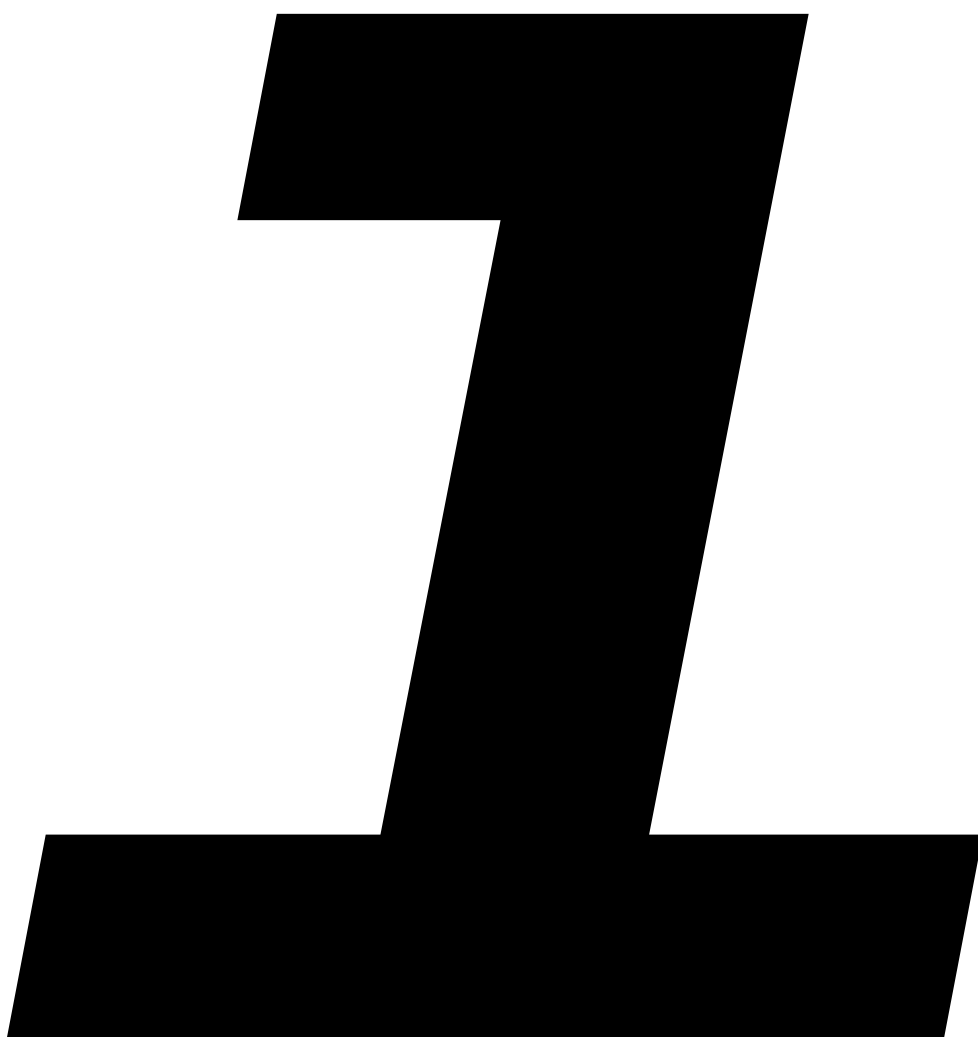
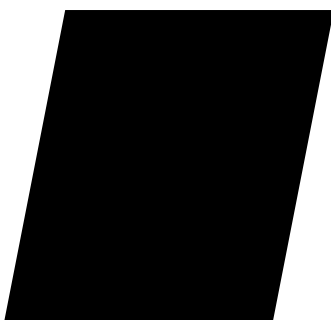


1

G

r

e



f

S

w

a

J

o

V

e

r

J

a

u

f

o

e

r

T

e

m

p

e

r

a

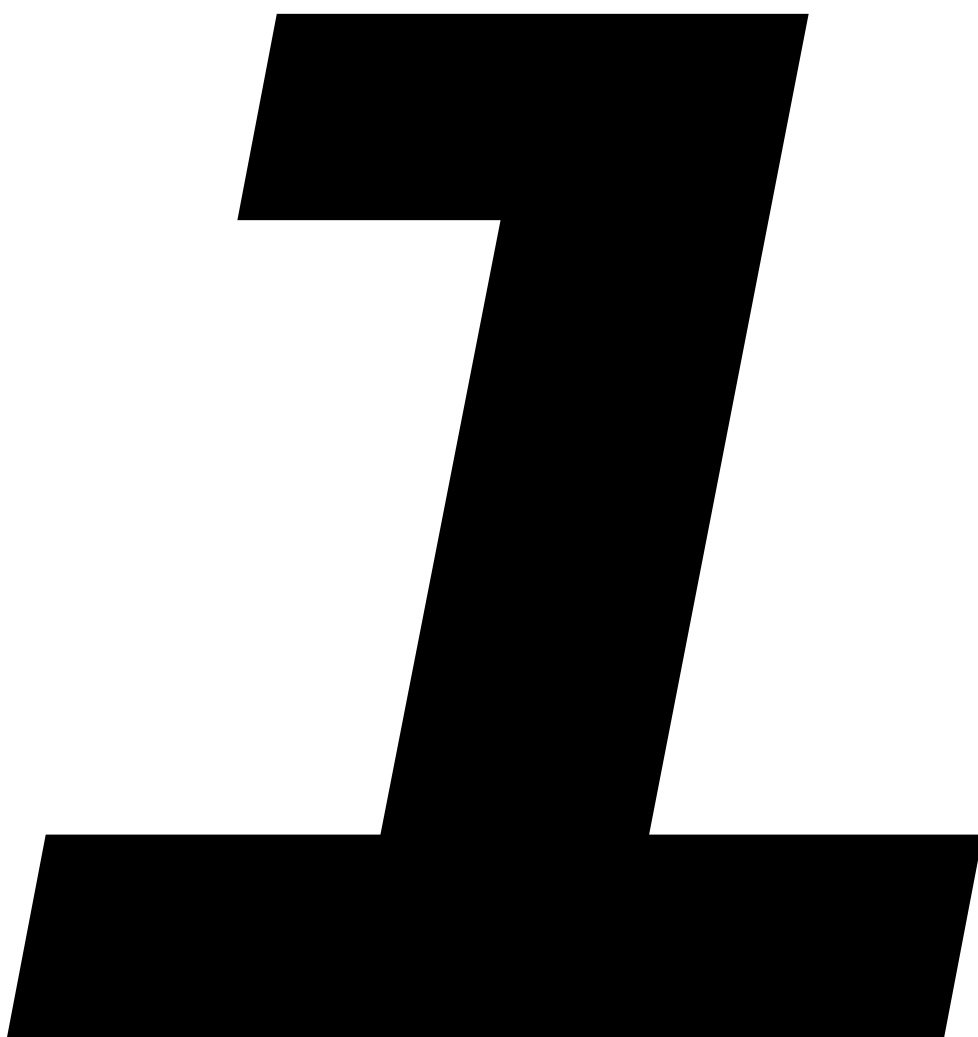
T

u

r



M



T

T

e

J

w

e

r

T

e

1

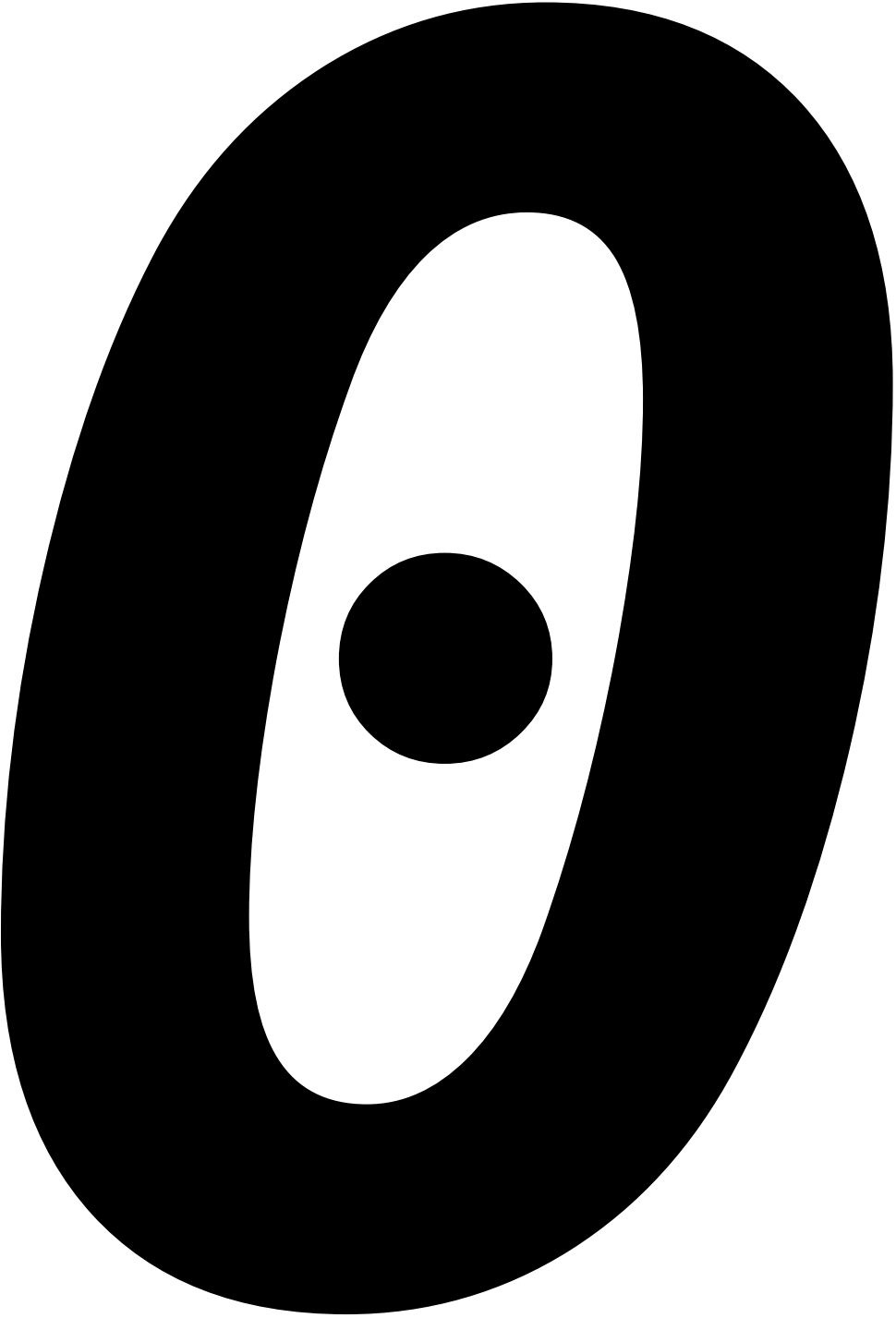


9



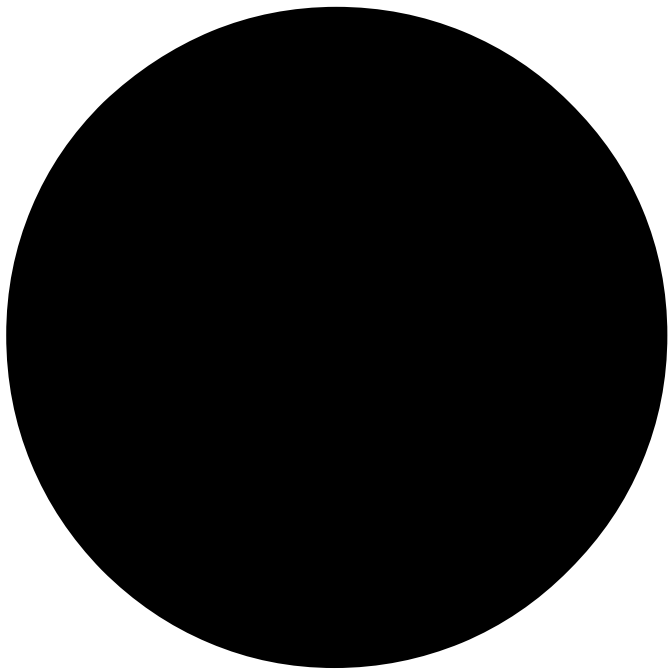


2



1

4

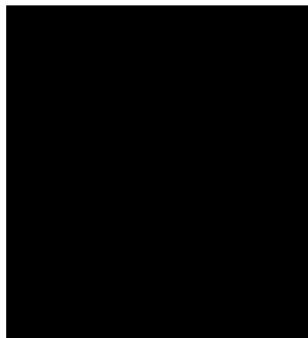
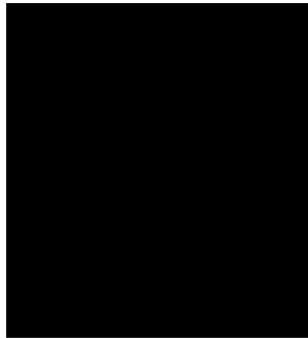


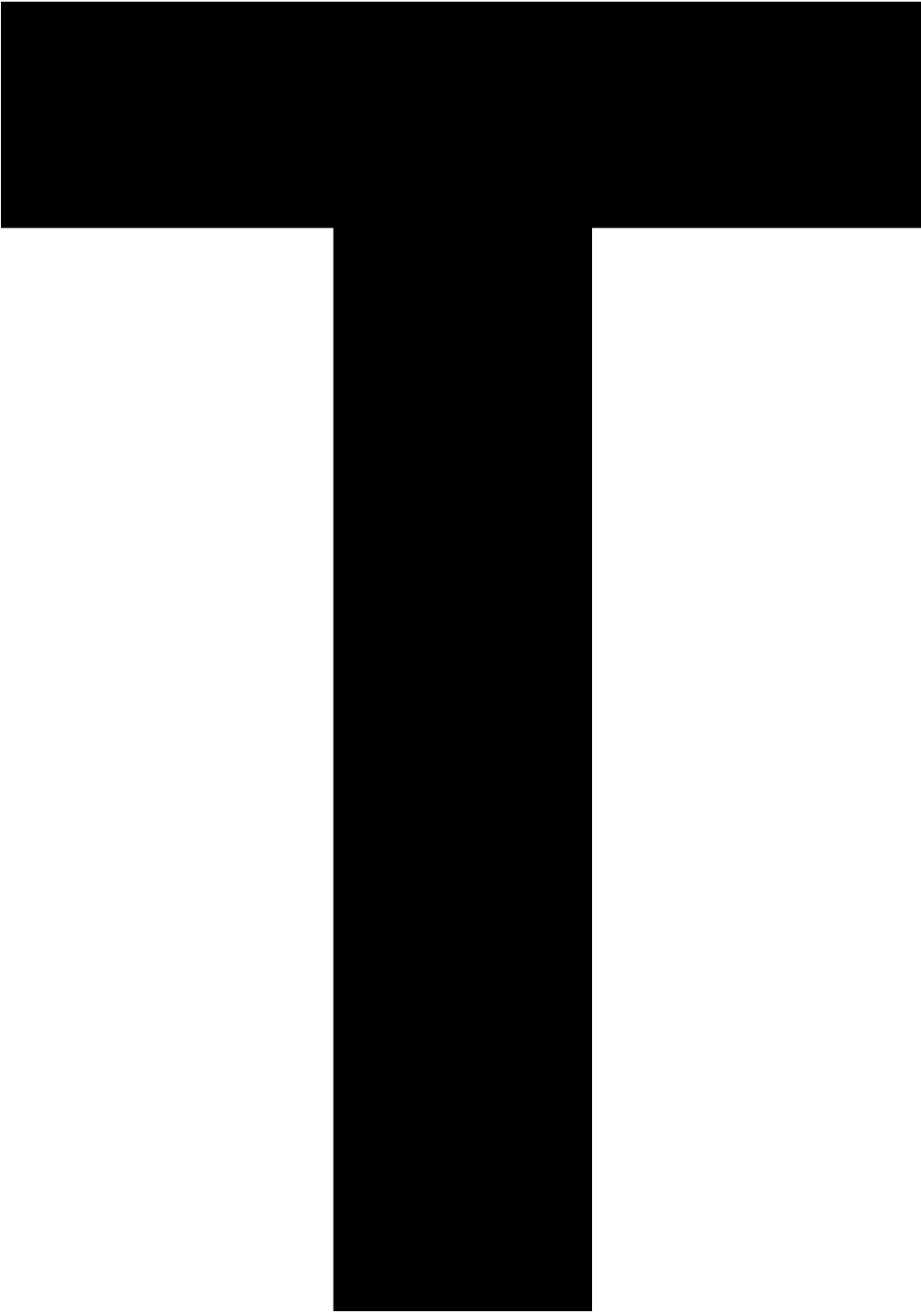
B

J

sa

u





e

m

o

e



sa



u



J

sa

h



e

S

m

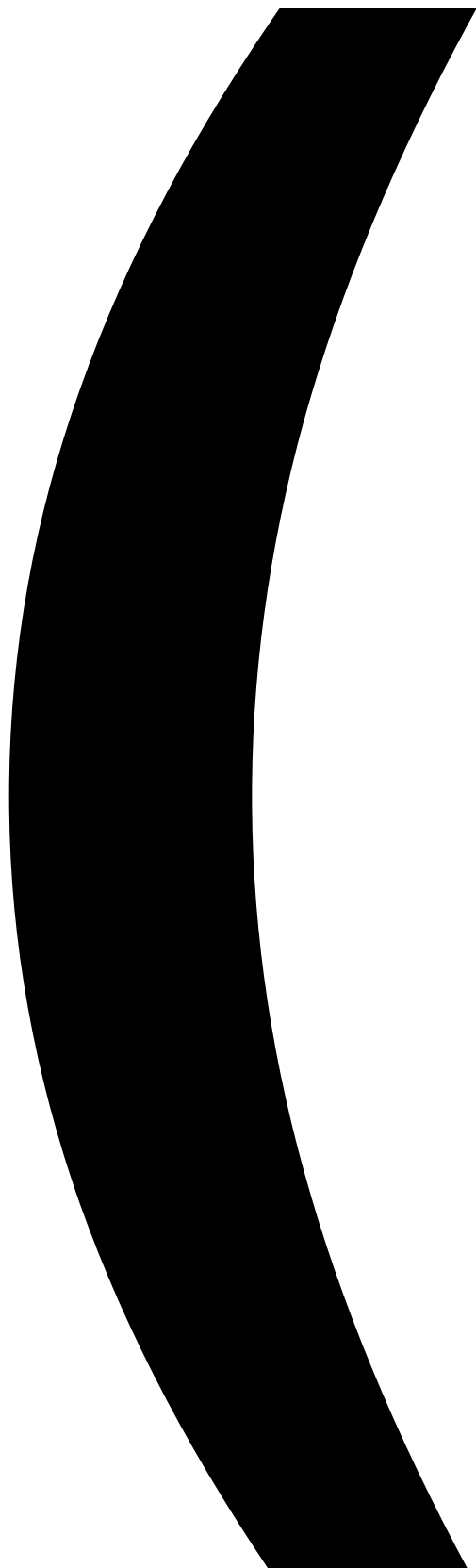






e

J



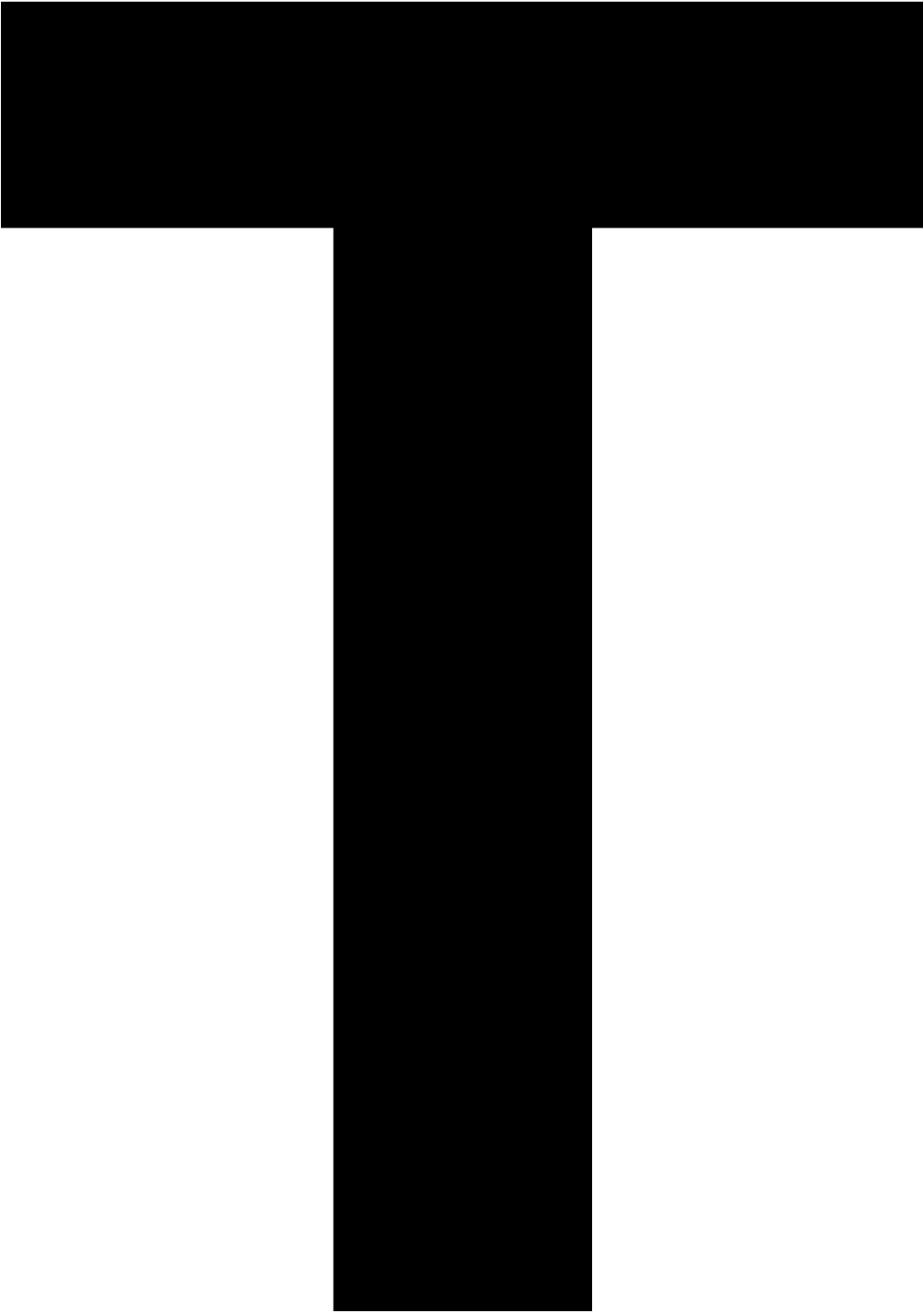
J



n



e



e

m

o

e



sa



u



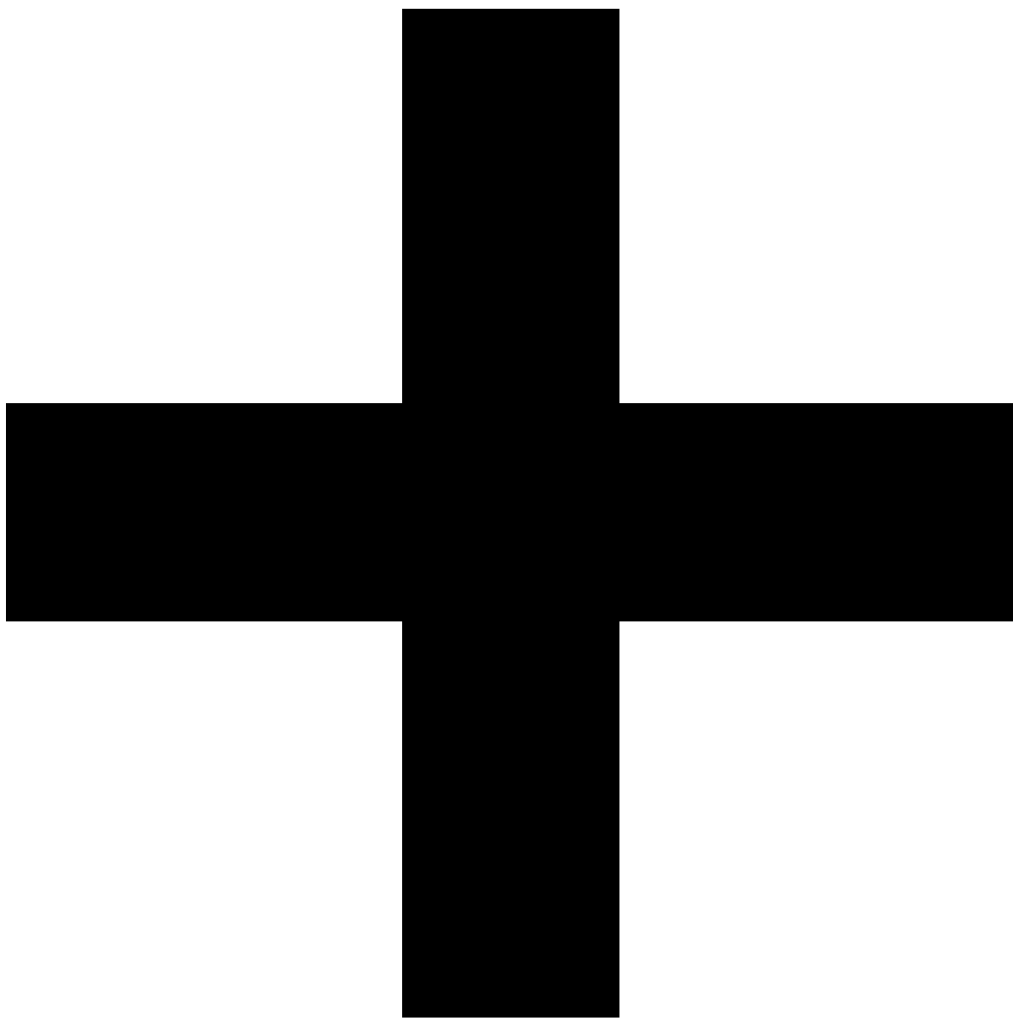
S



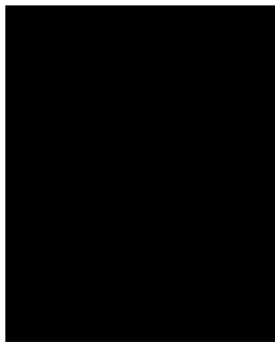
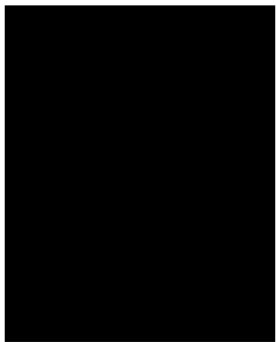
sa

J

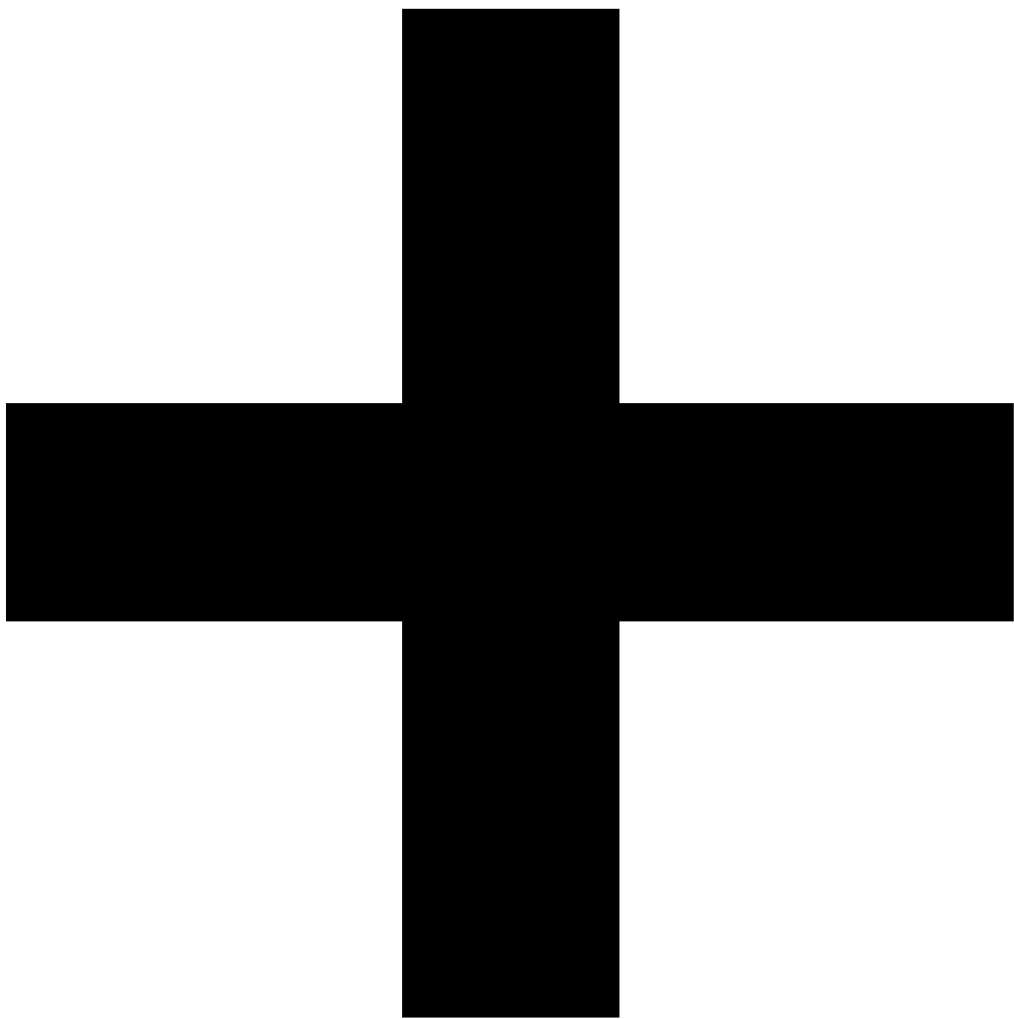
sa

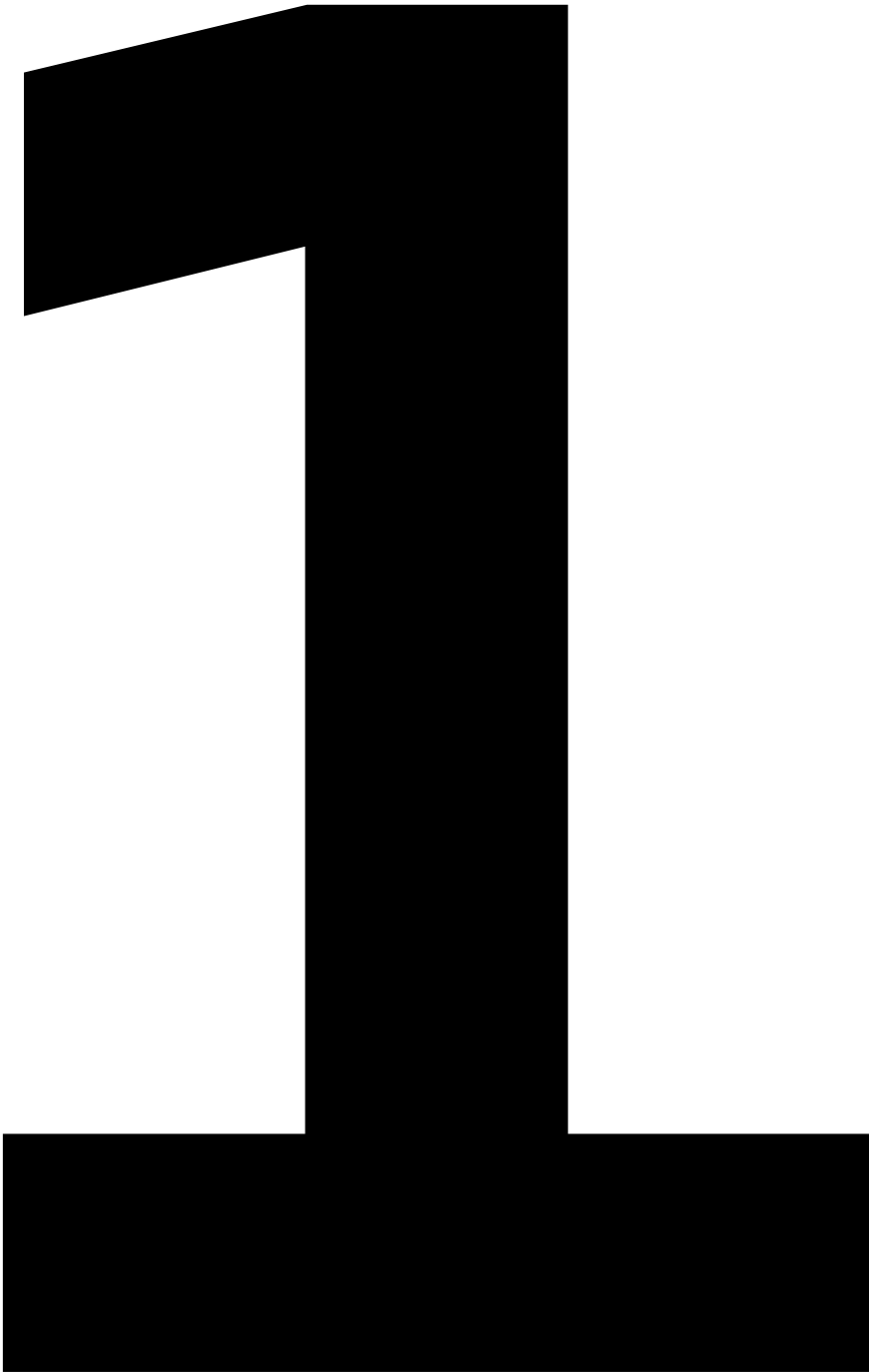


4

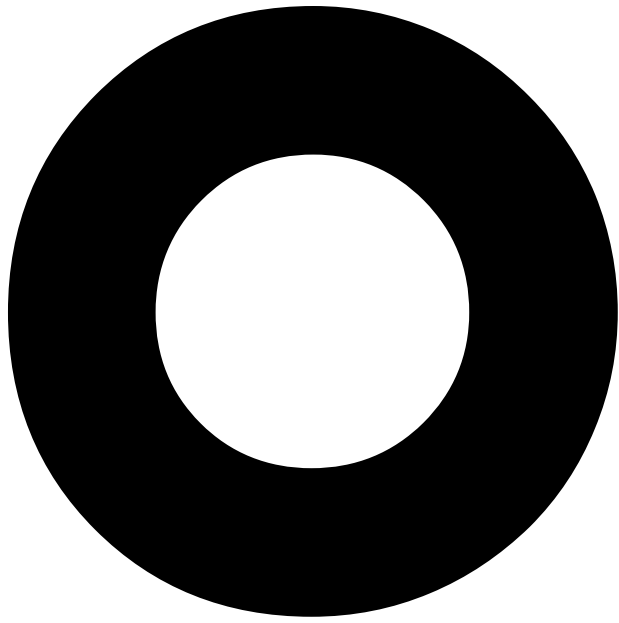




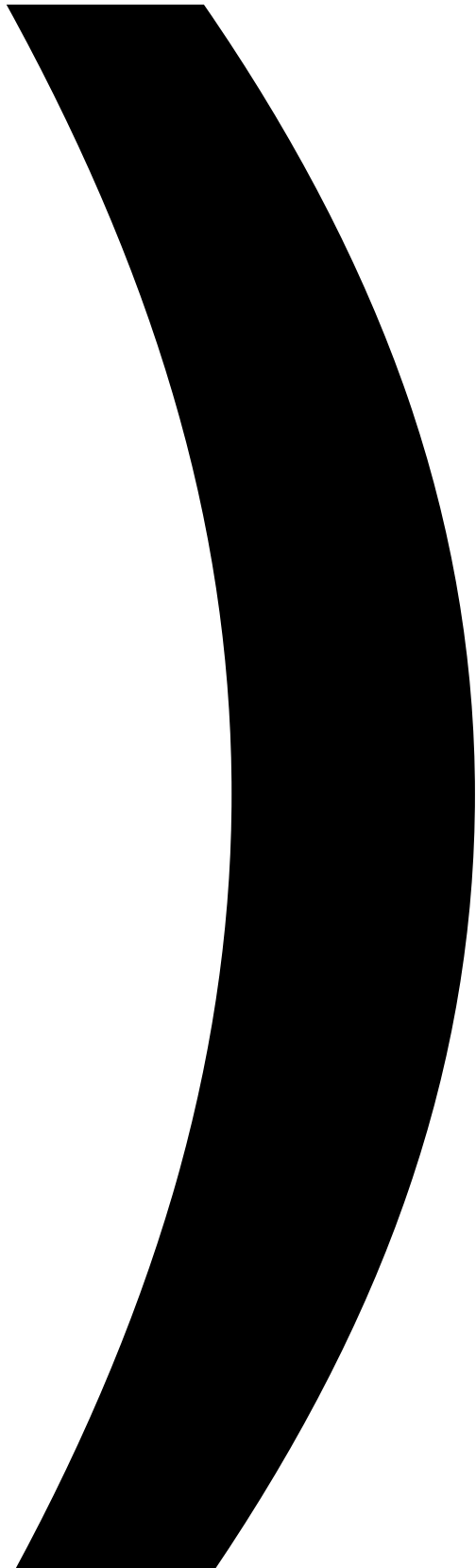


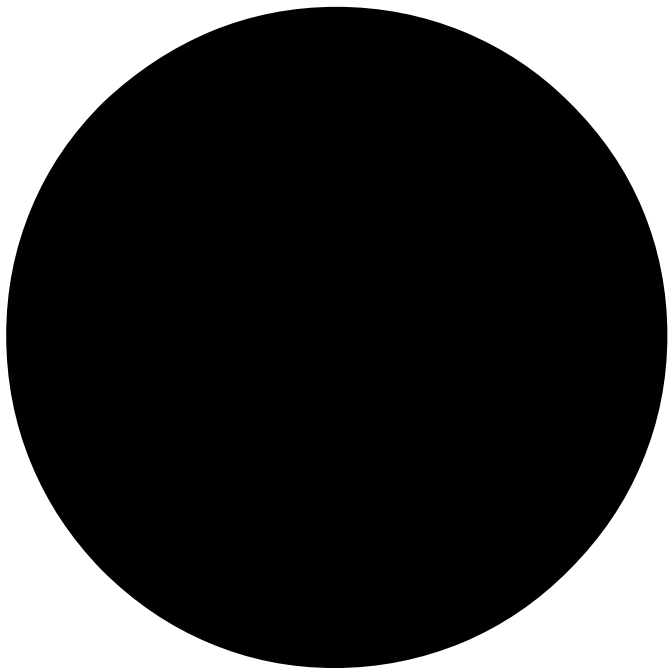


2



C

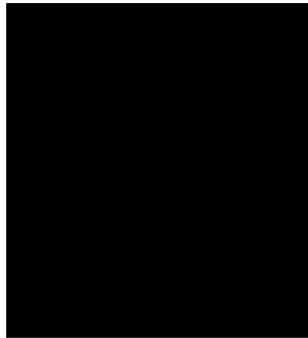


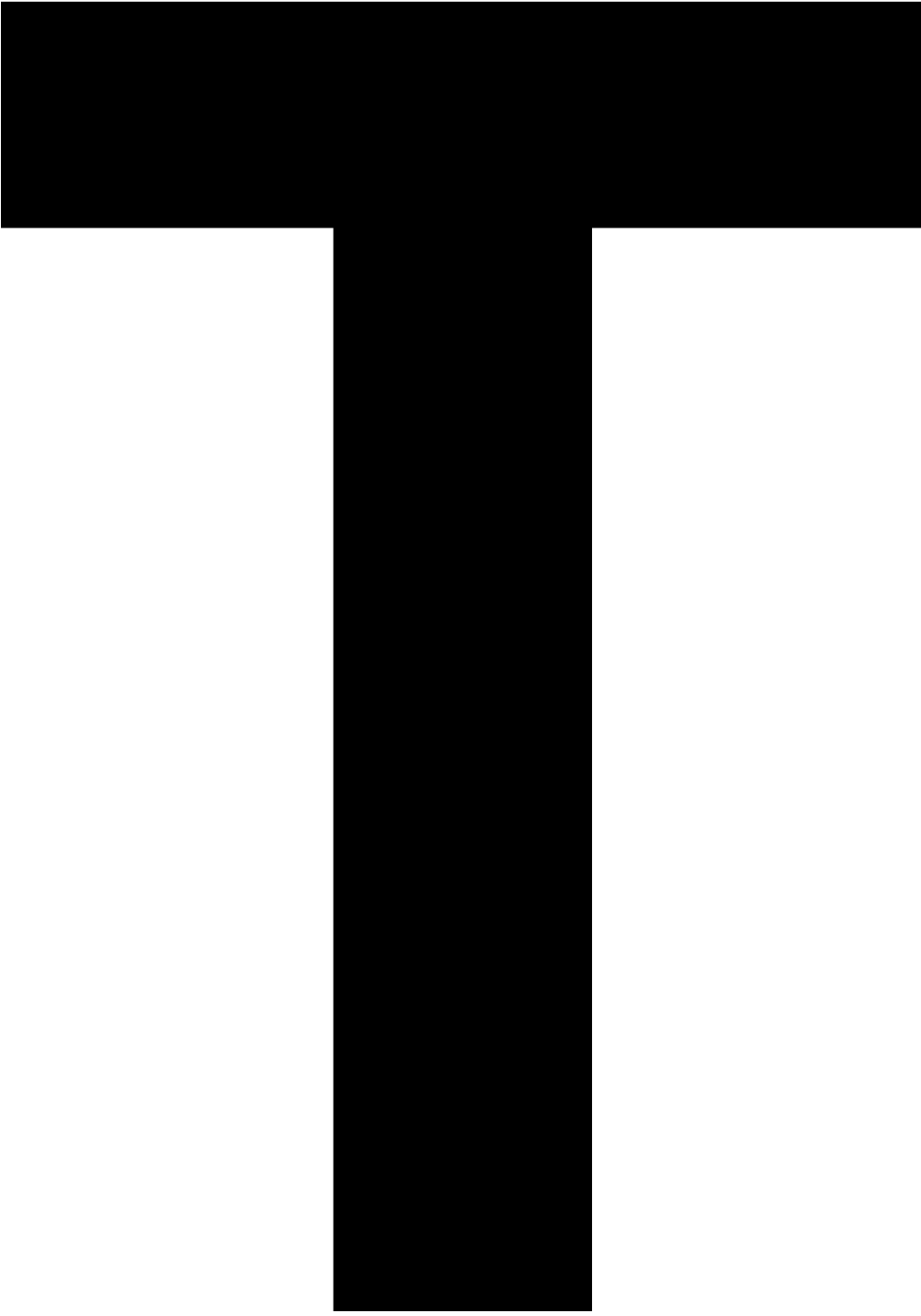


R









e

m

o

e



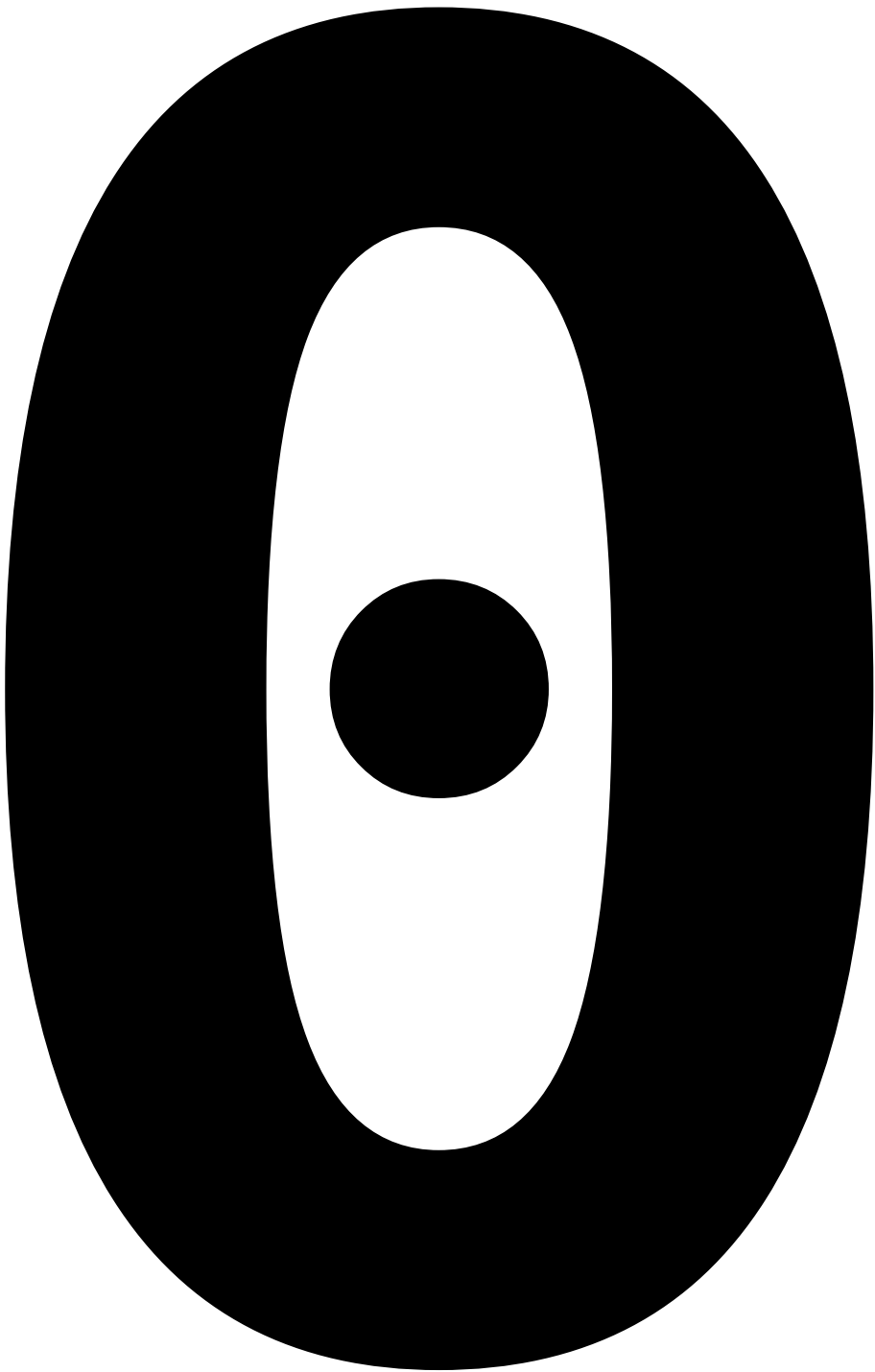
sa



u



3





J

sa

h



e

S

m

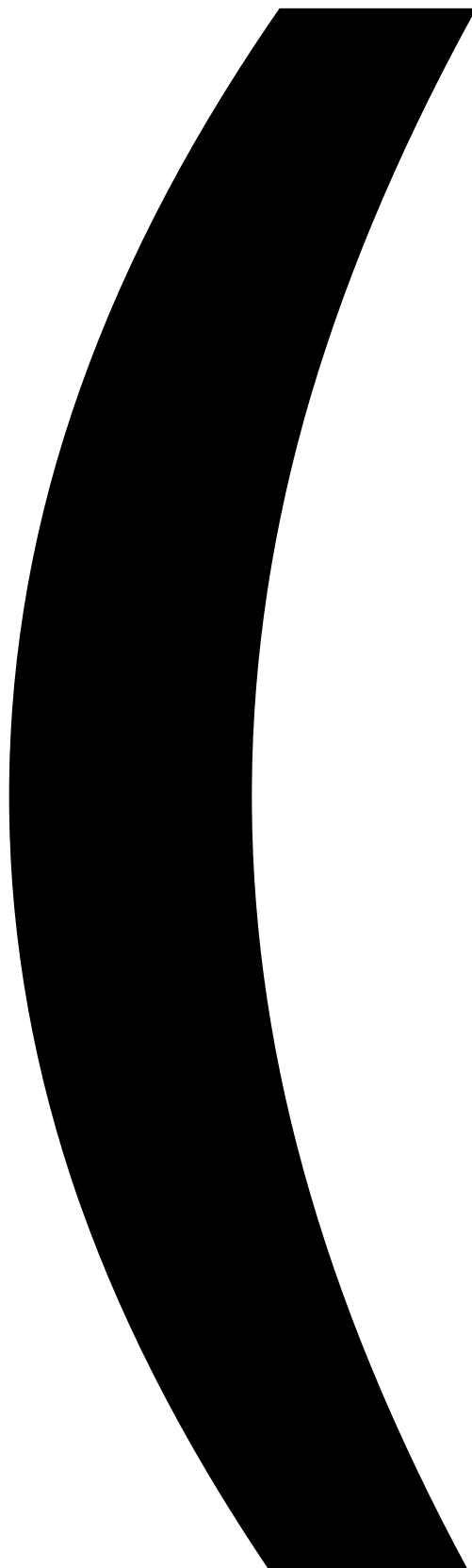




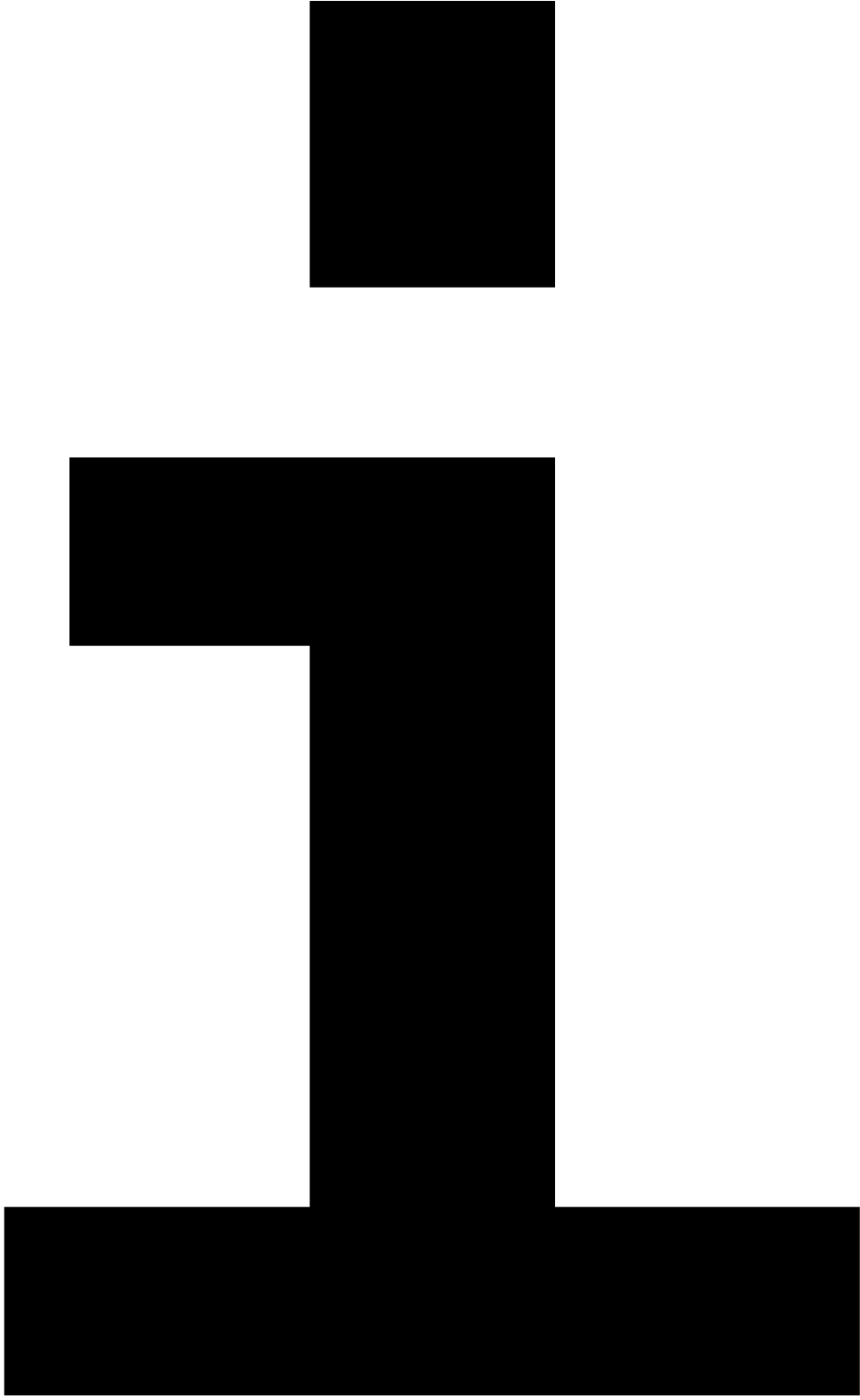


e

J



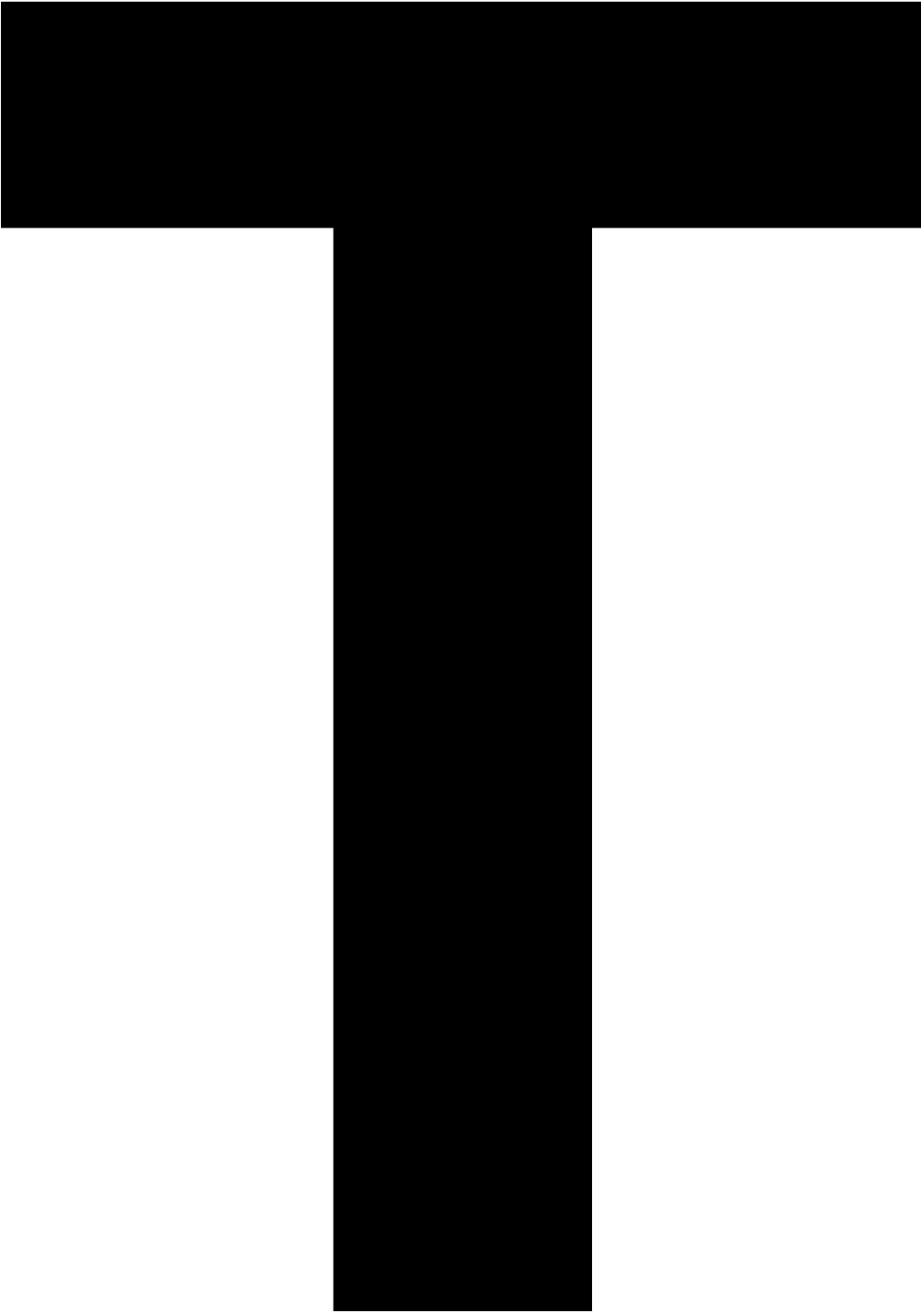
J



n



e



e

m

o

e



sa



u



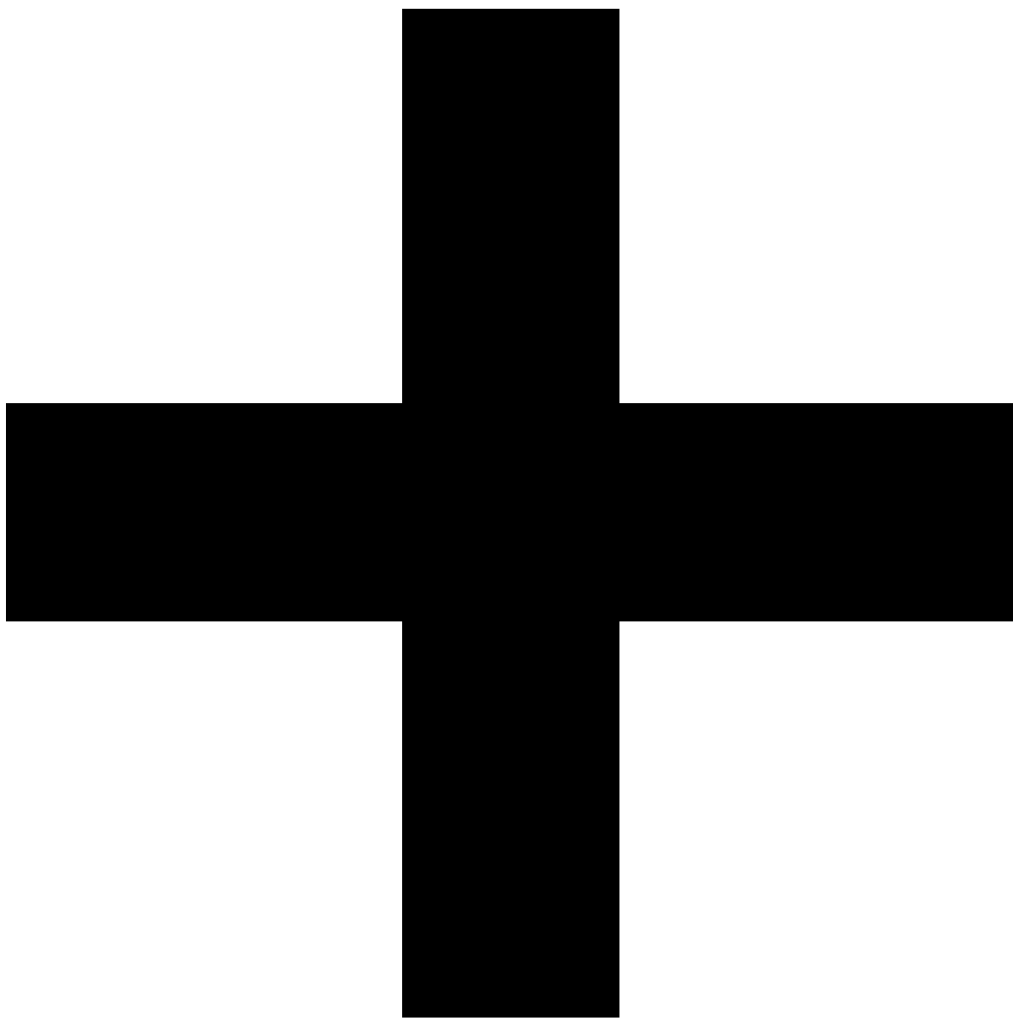
S



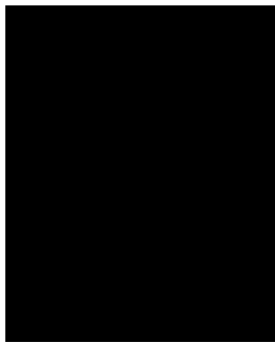
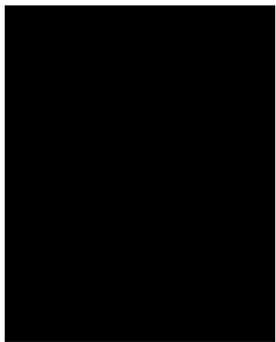
sa

J

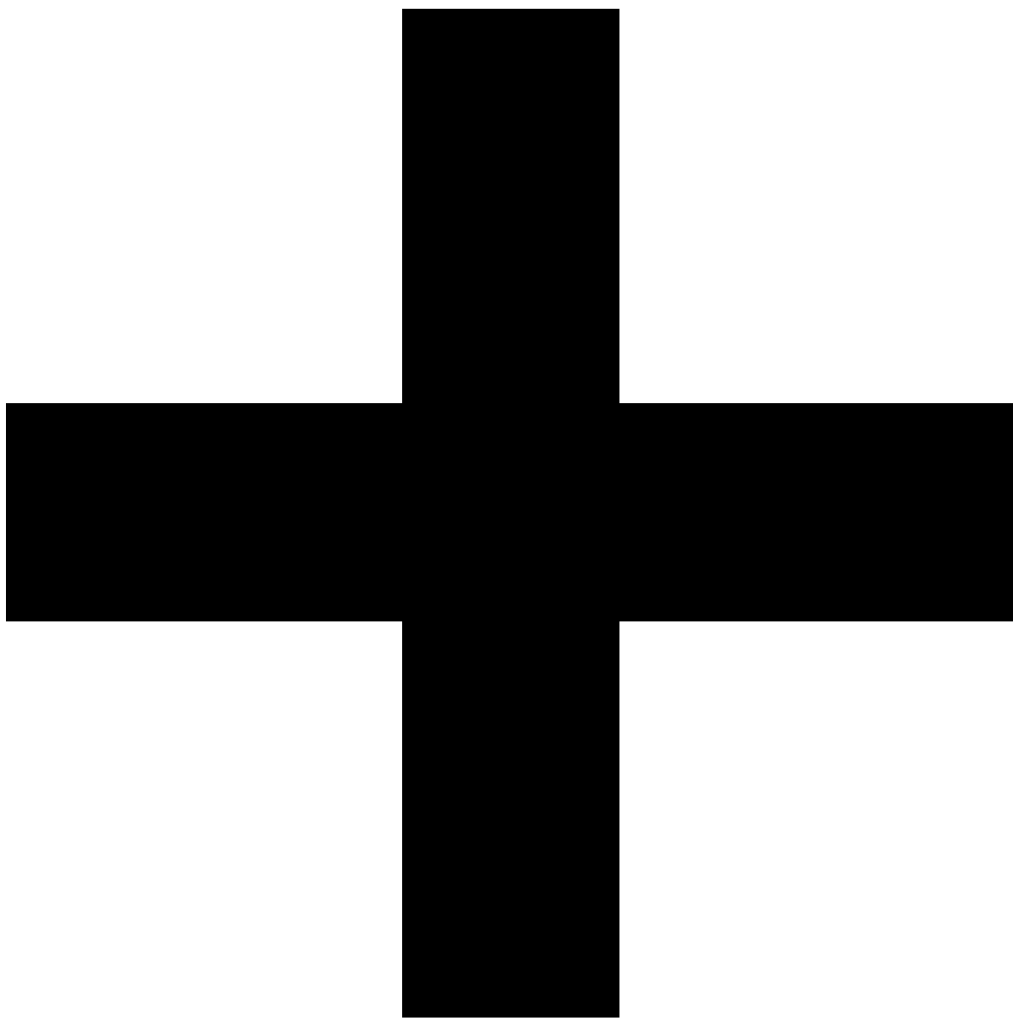
sa

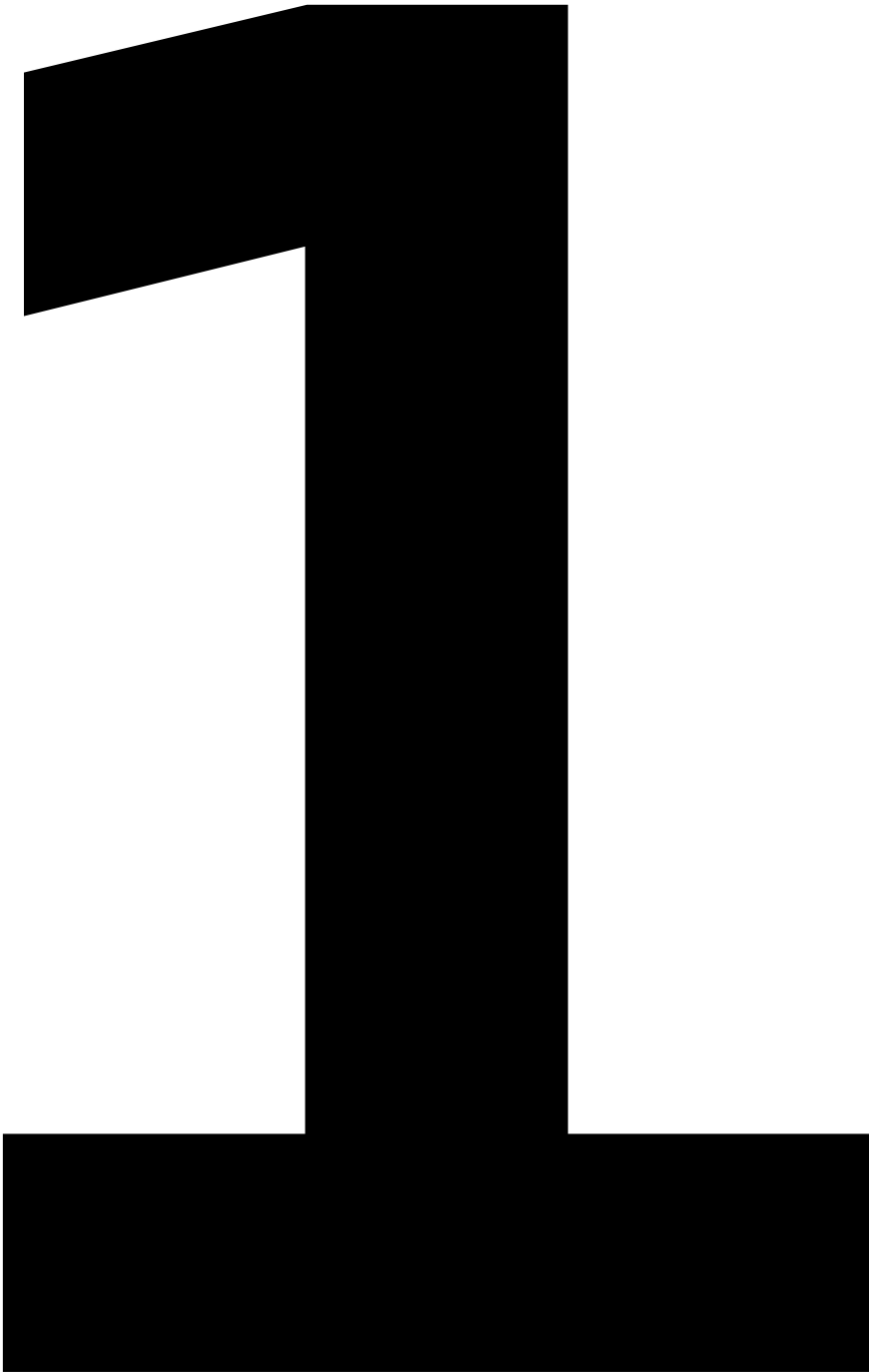


4

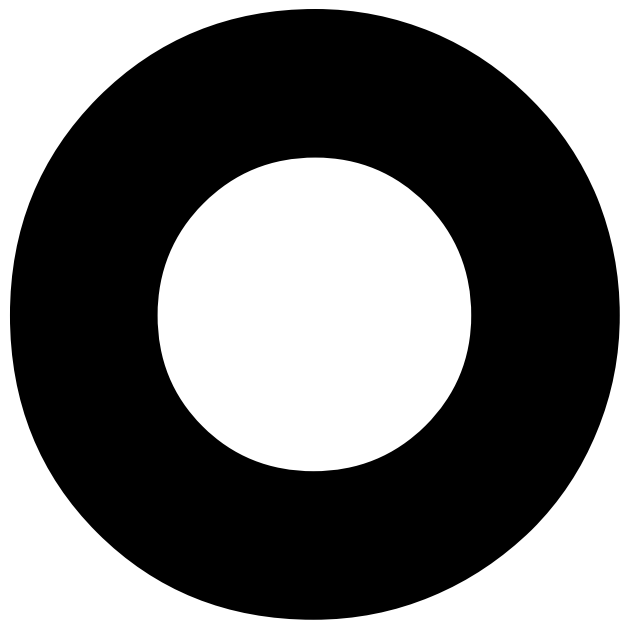




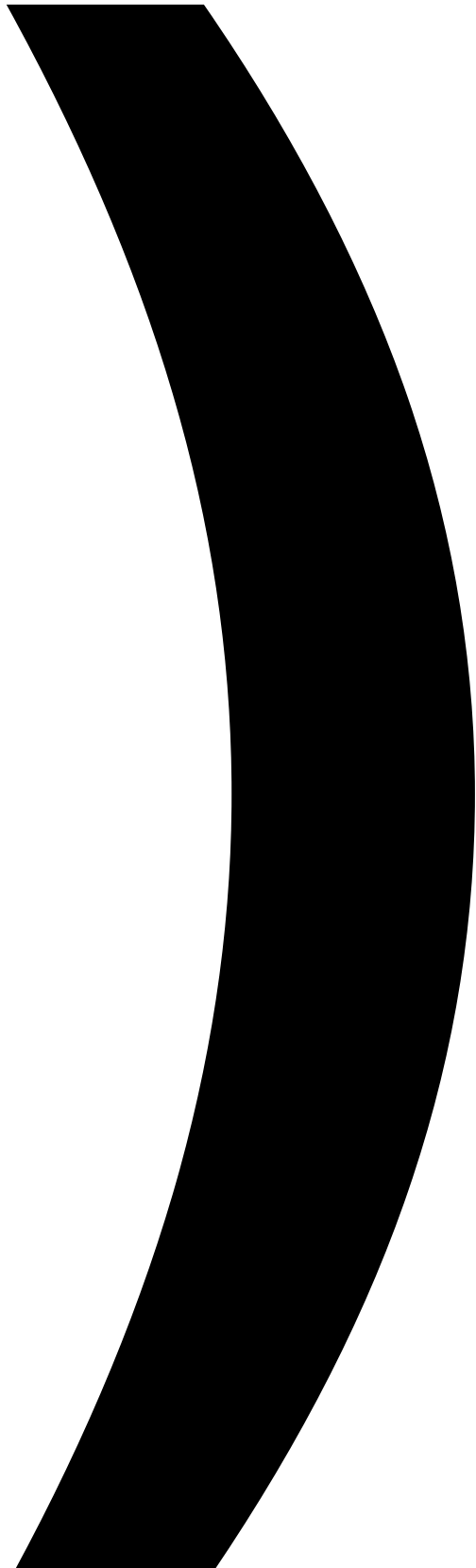


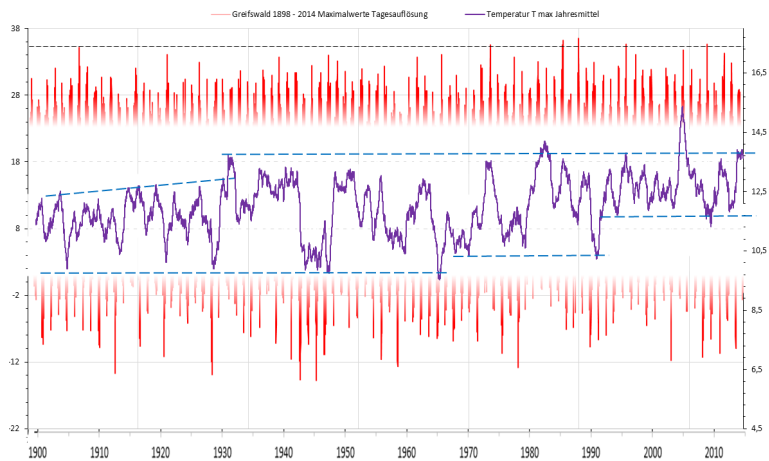


2

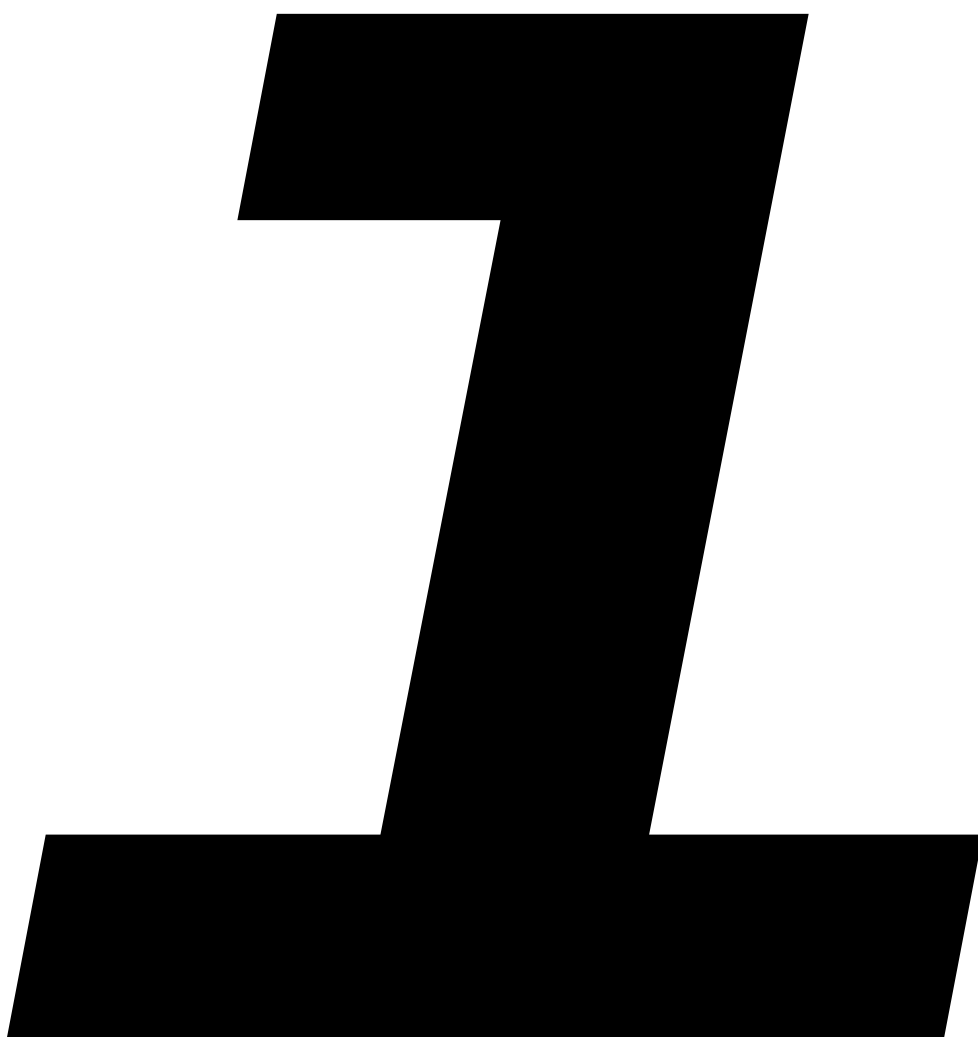
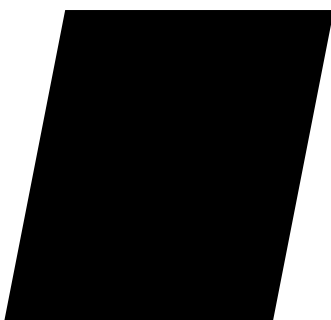


C





B



J

o



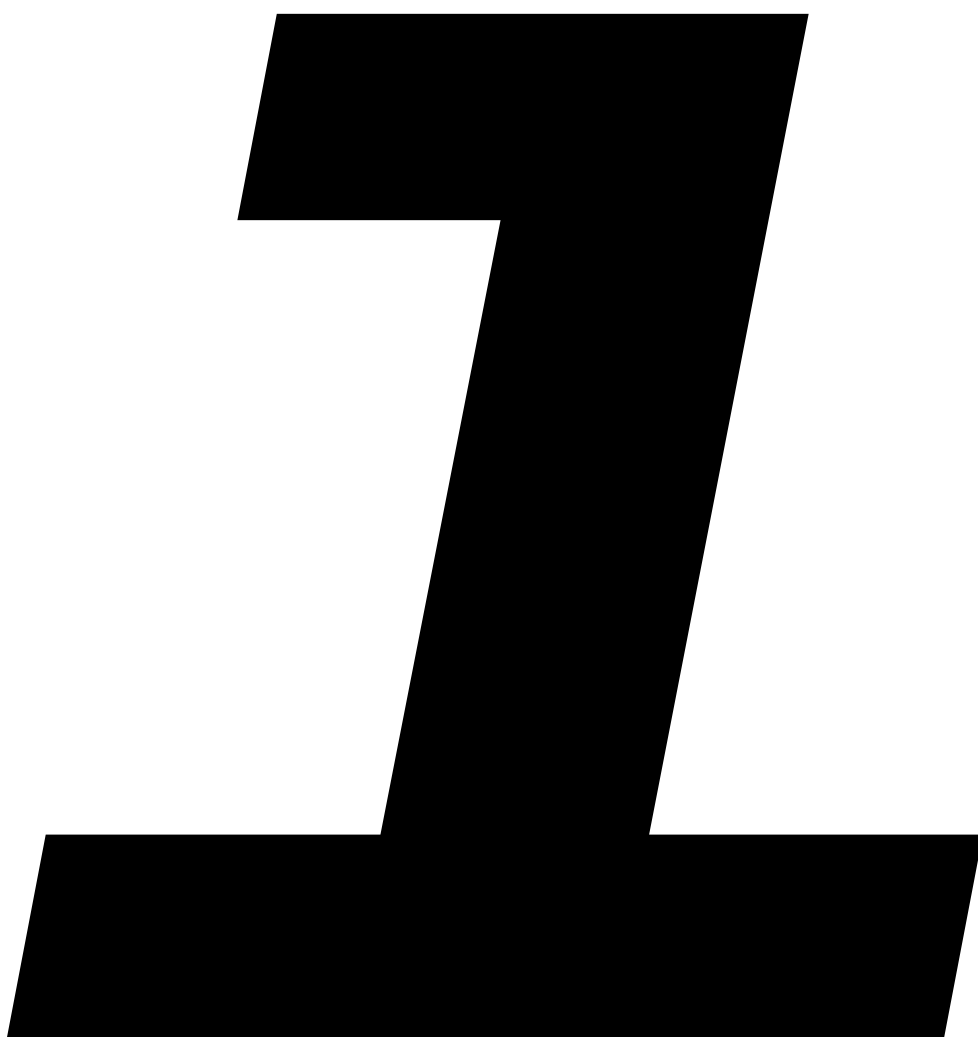
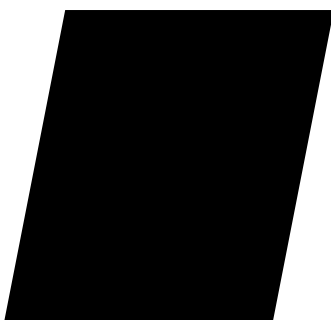


2

G

r

e



f

S

w

a

J

o

V

e

r

J

a

u

f

o

e

r

T

e

m

p

e

r

a

T

u

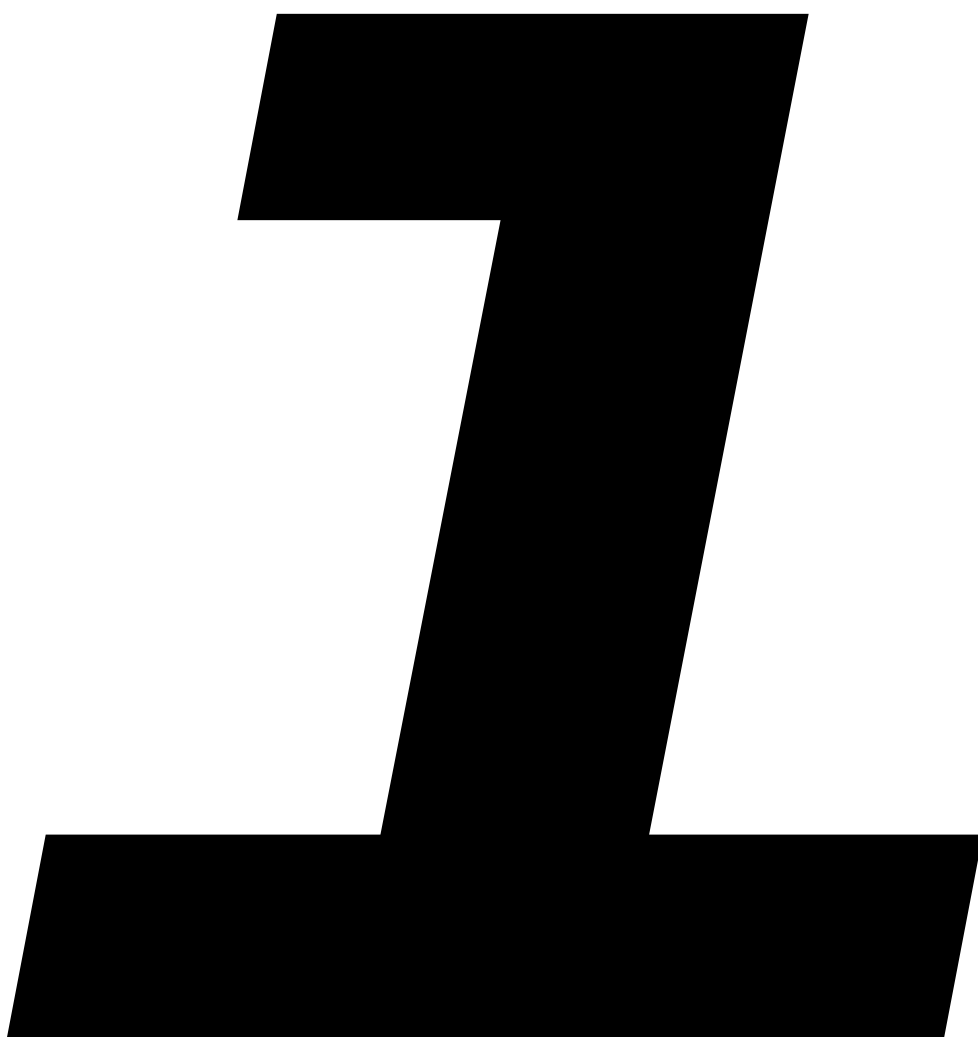
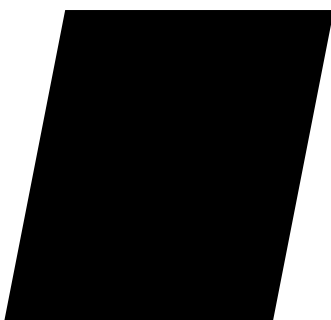
r



M

a

X



m

a

J

w

e

r

T

e

1

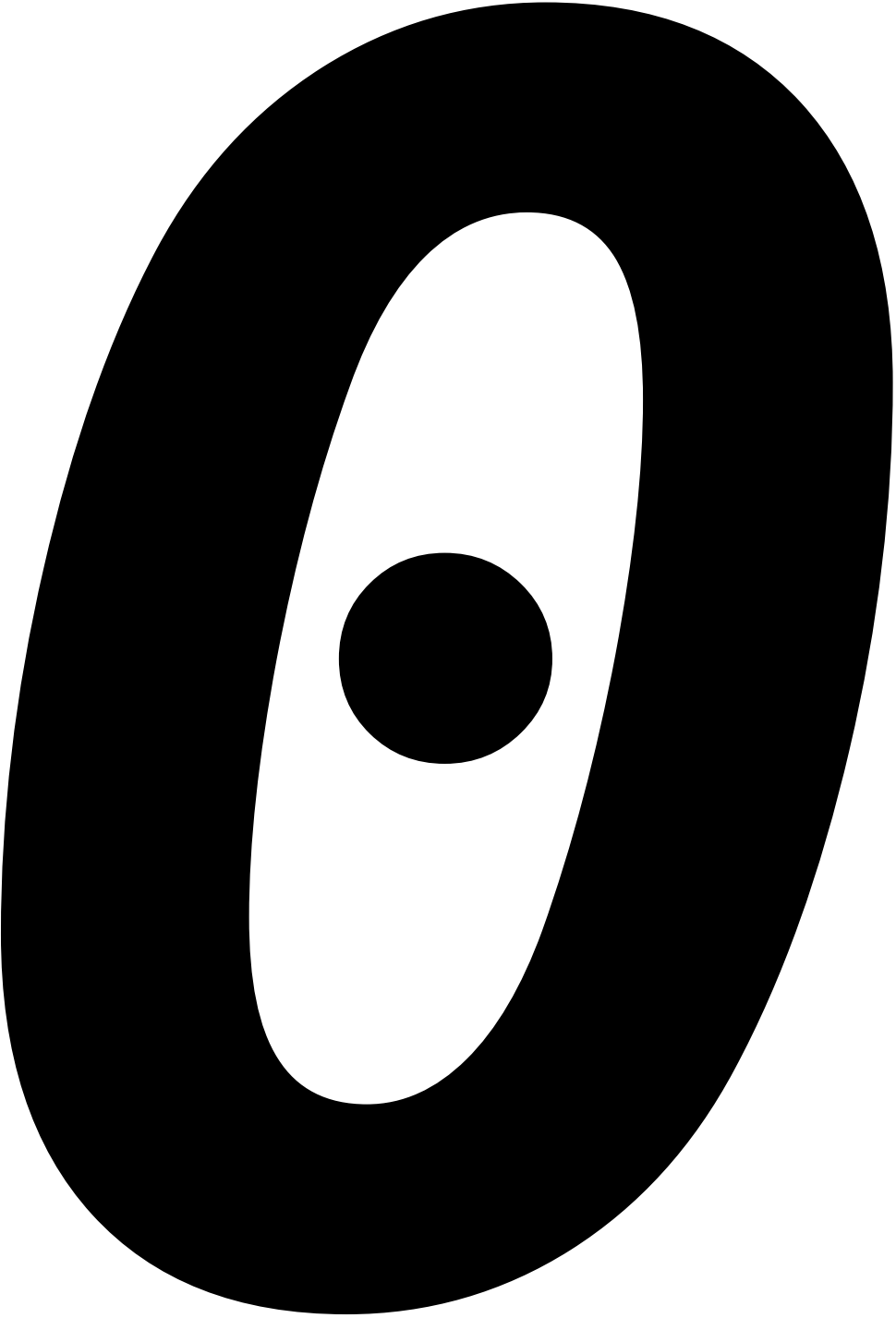


9



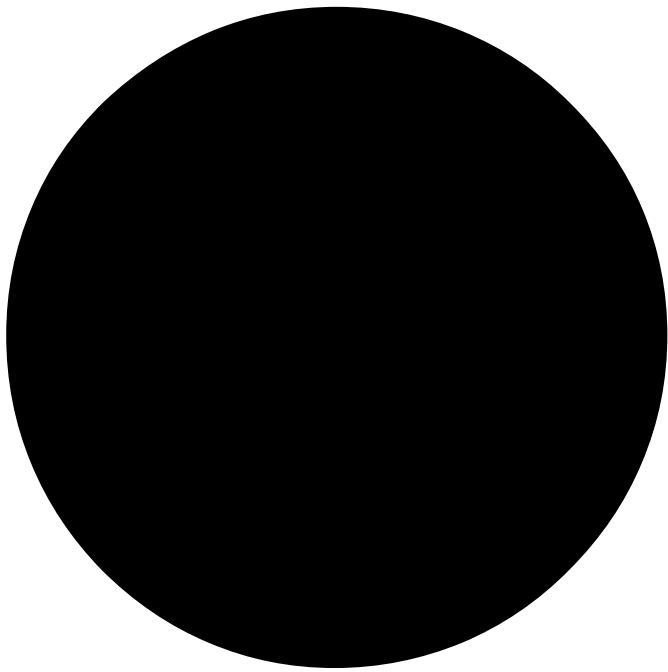


2



1

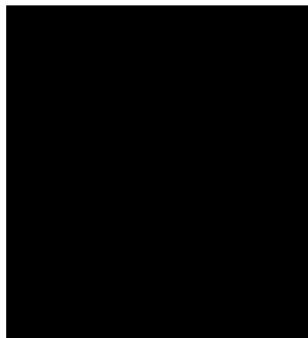
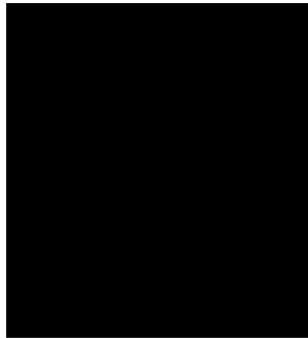
4



R







M

5a





m

sa

J



e

m

o

e

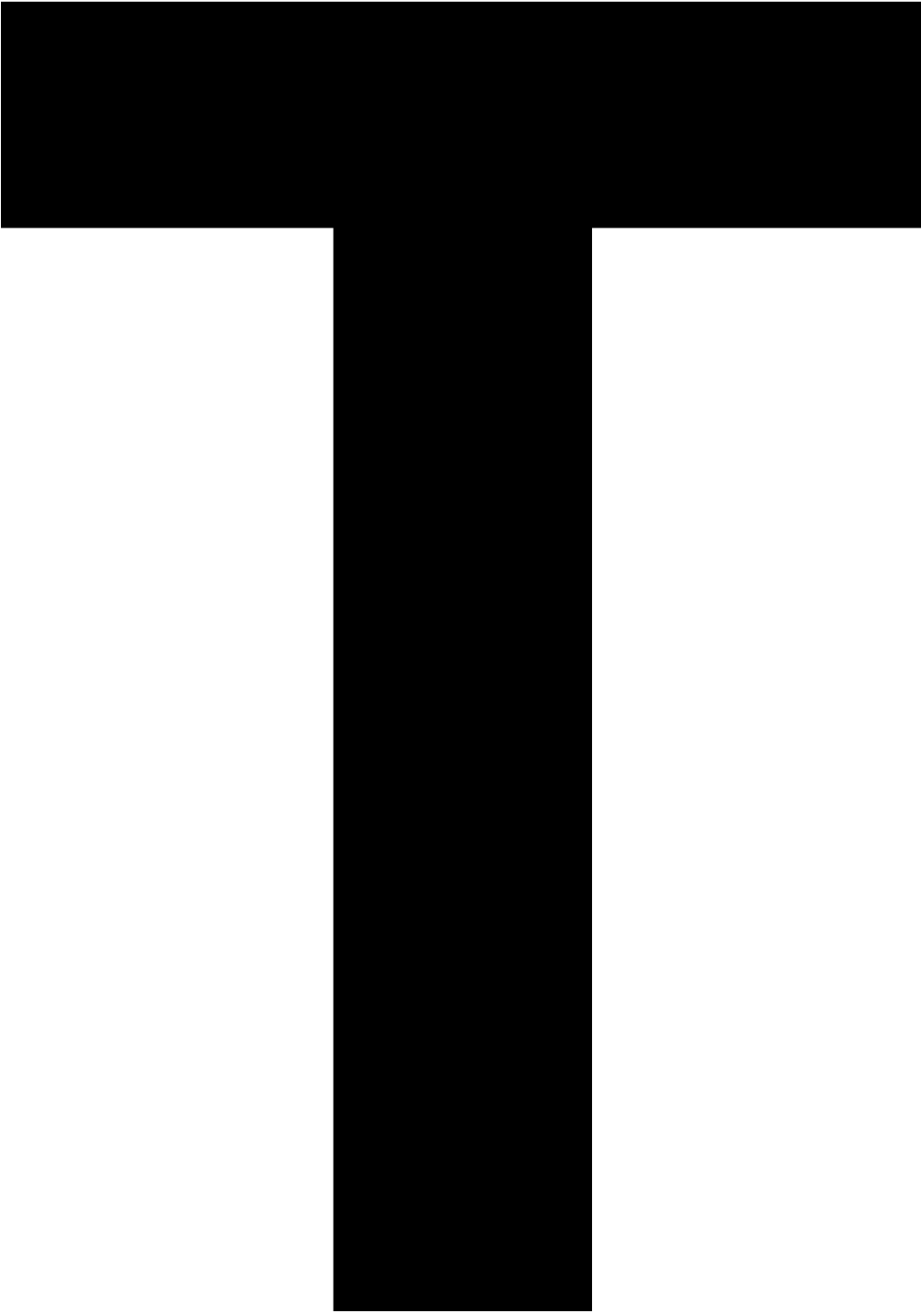


sa



u





sa

Q

e

S

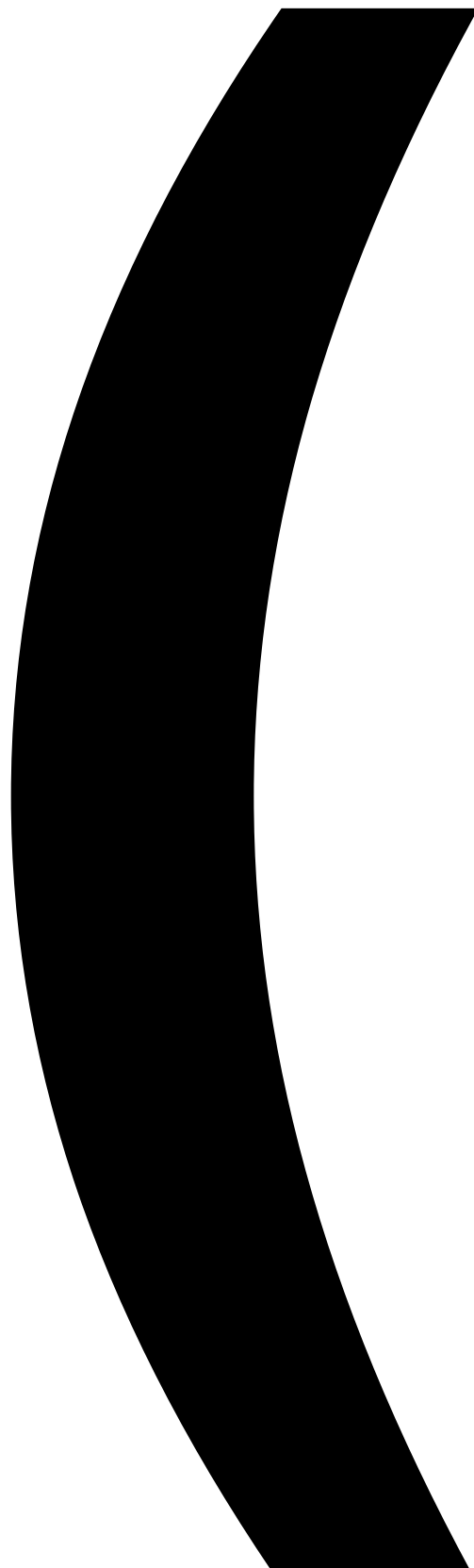
w

e





e



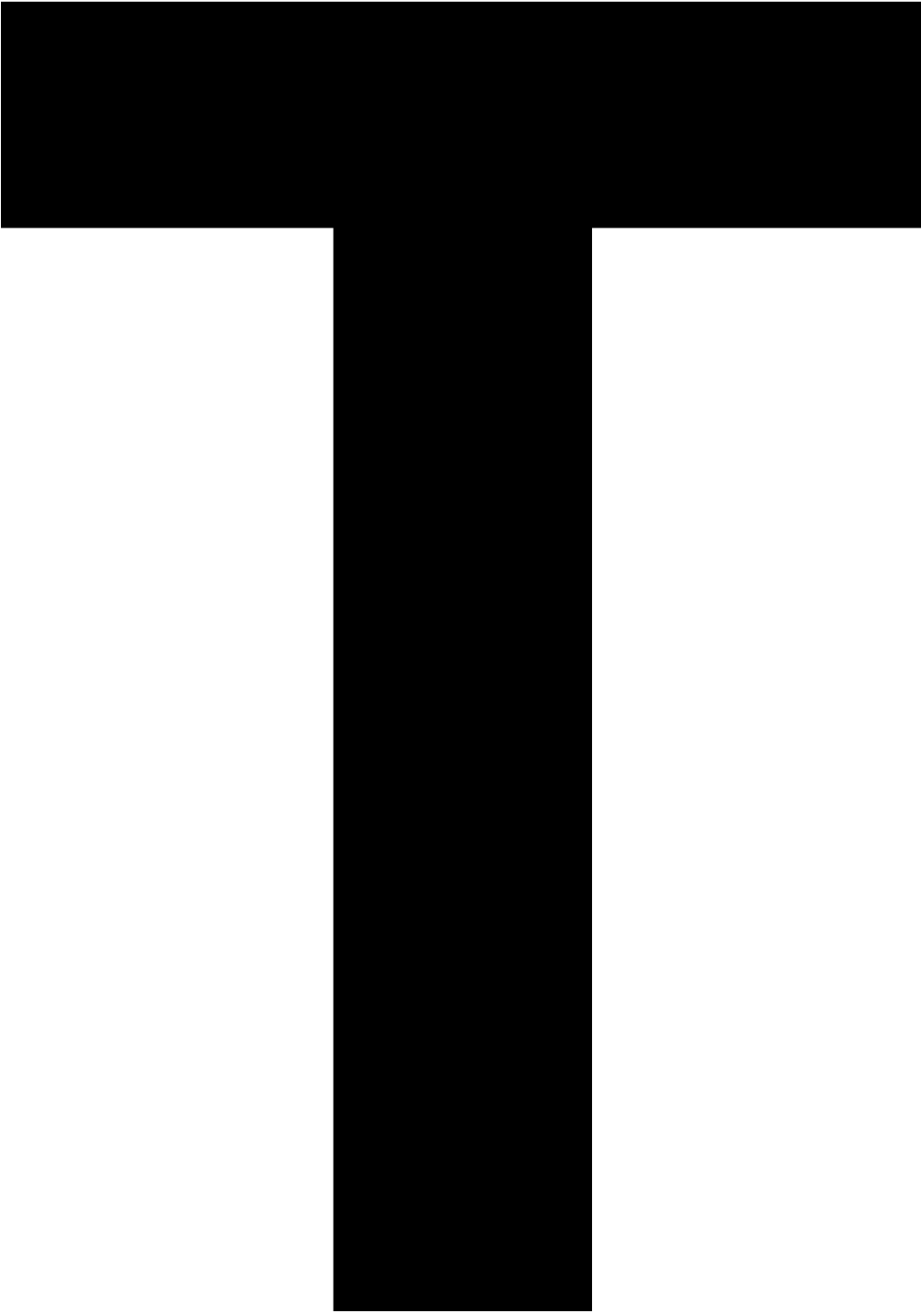
J



n



e



e

m

o

e



5a



u



S



sa

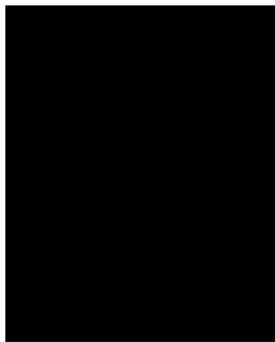
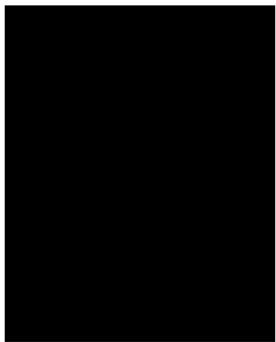
J

sa

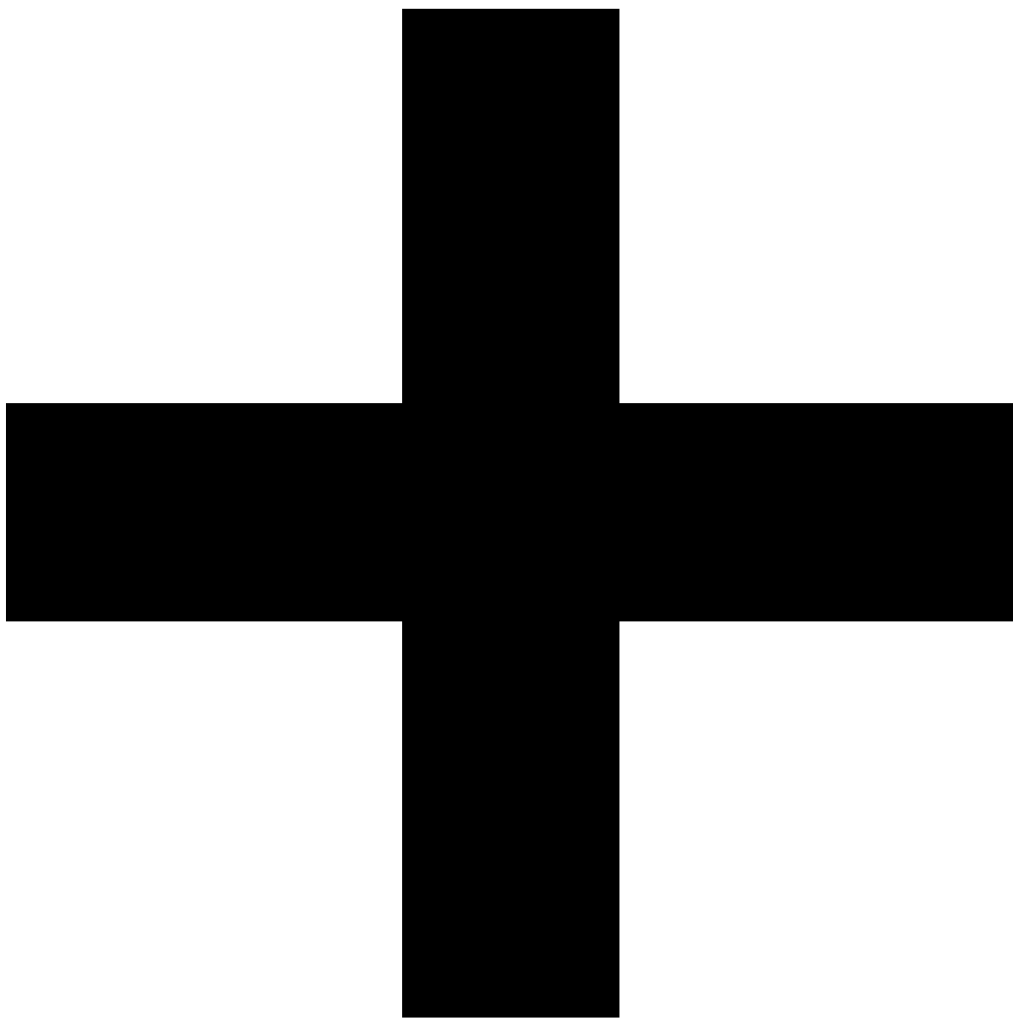


2

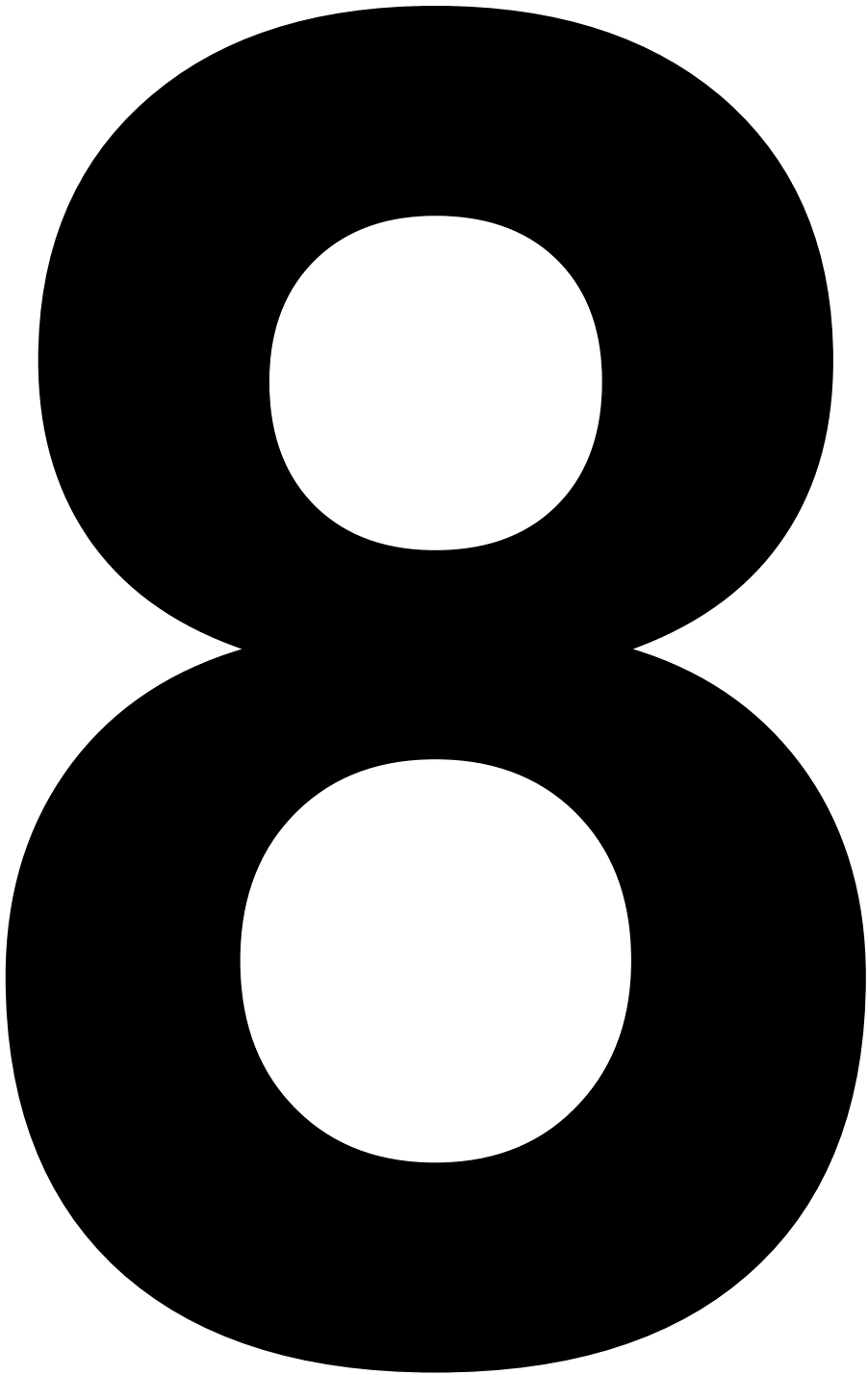
2

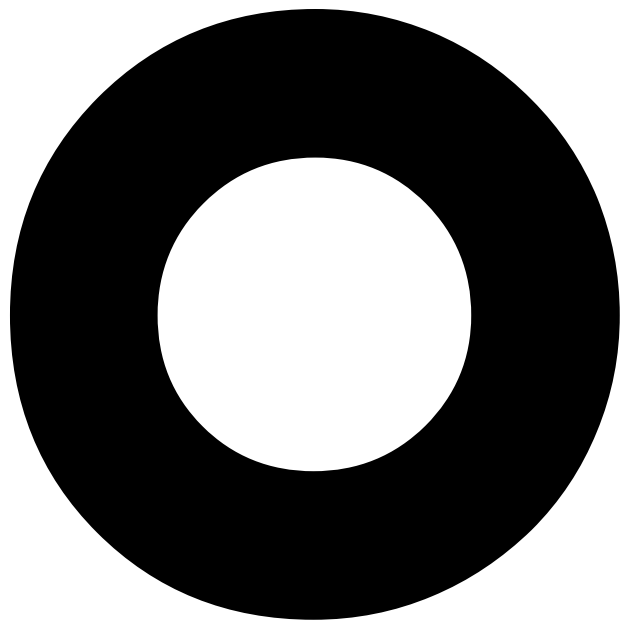




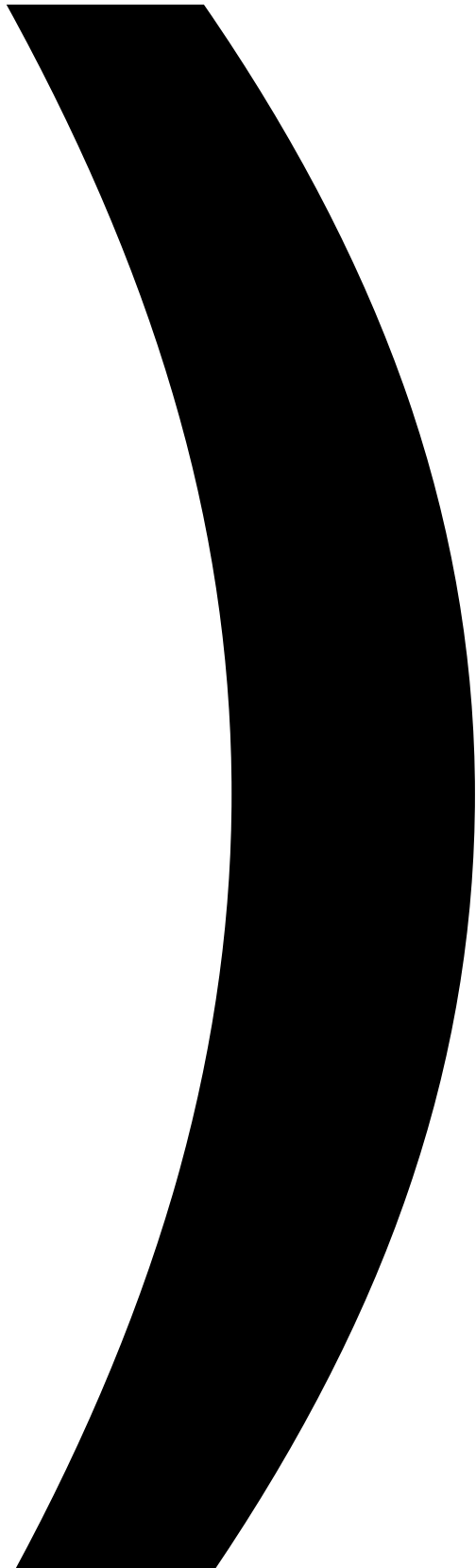


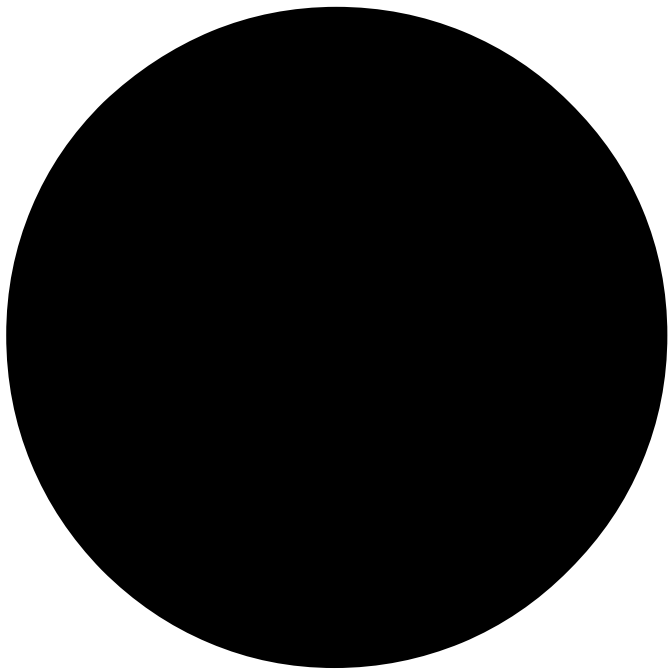
3





C





V



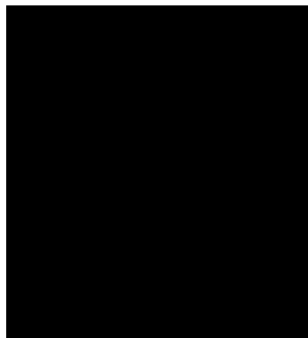


J

e

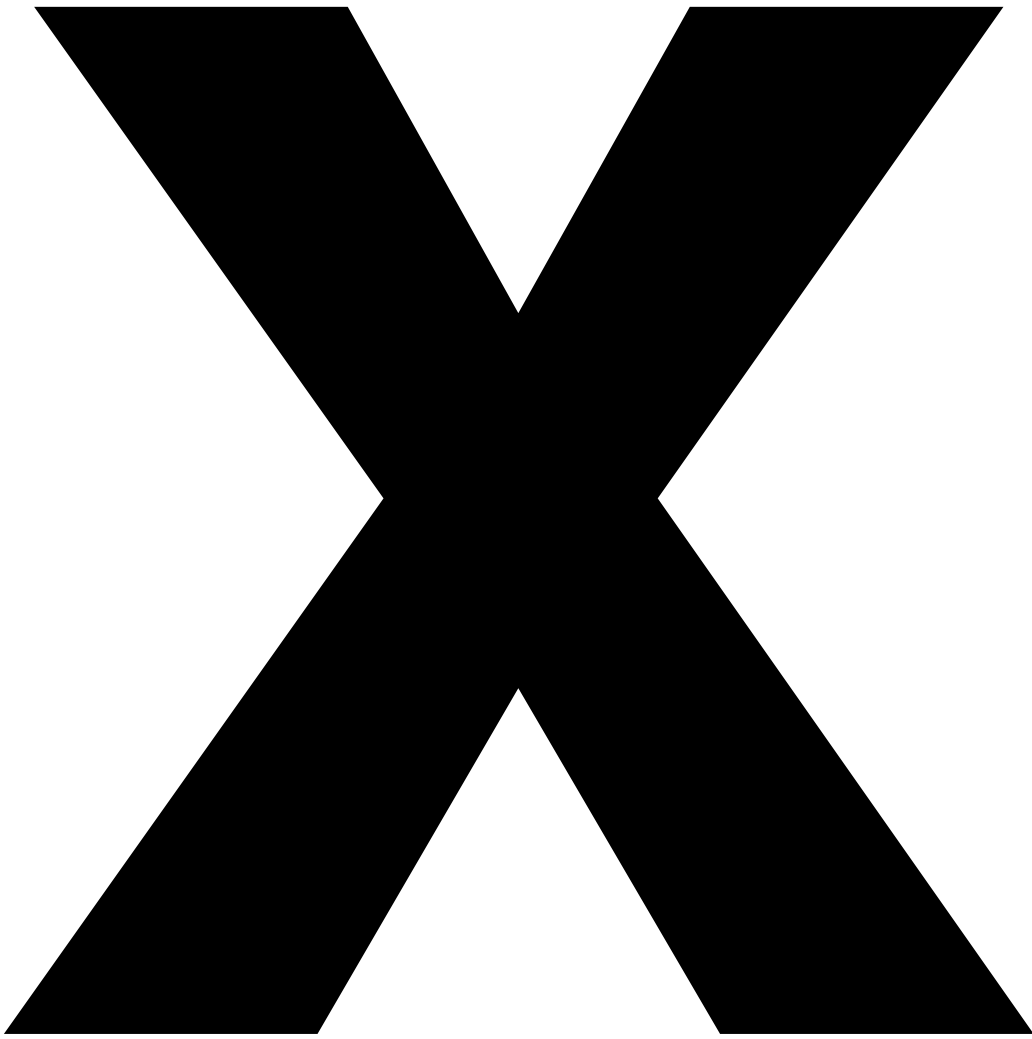






M

sa





m

sa

J



e

m

o

e



sa



u



J

sa

h



e

S

m

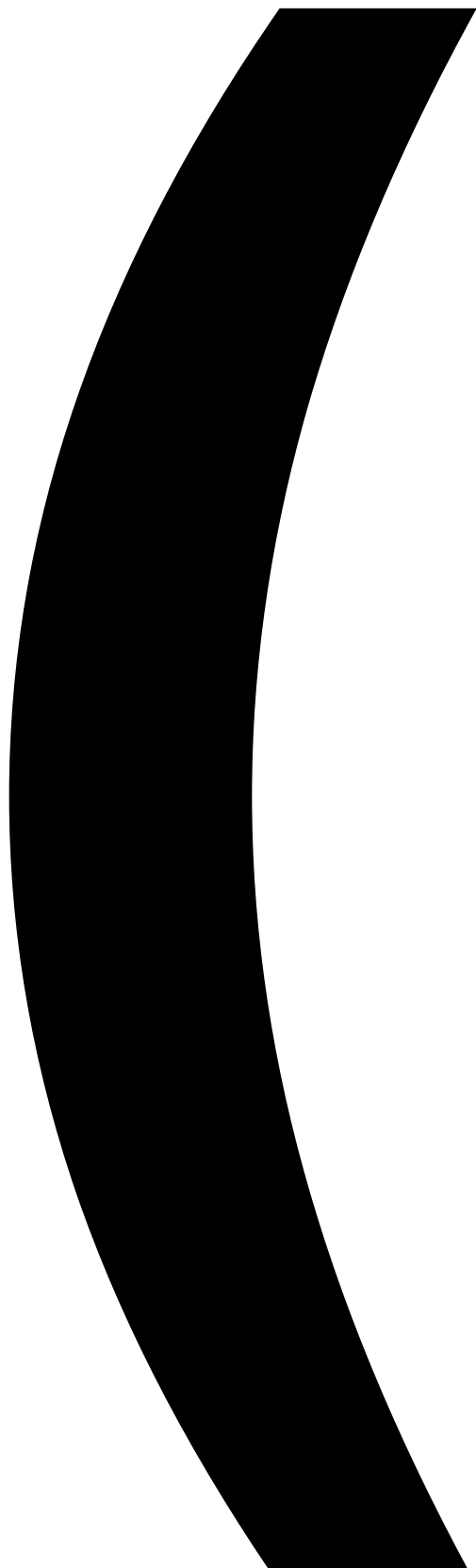






e

J





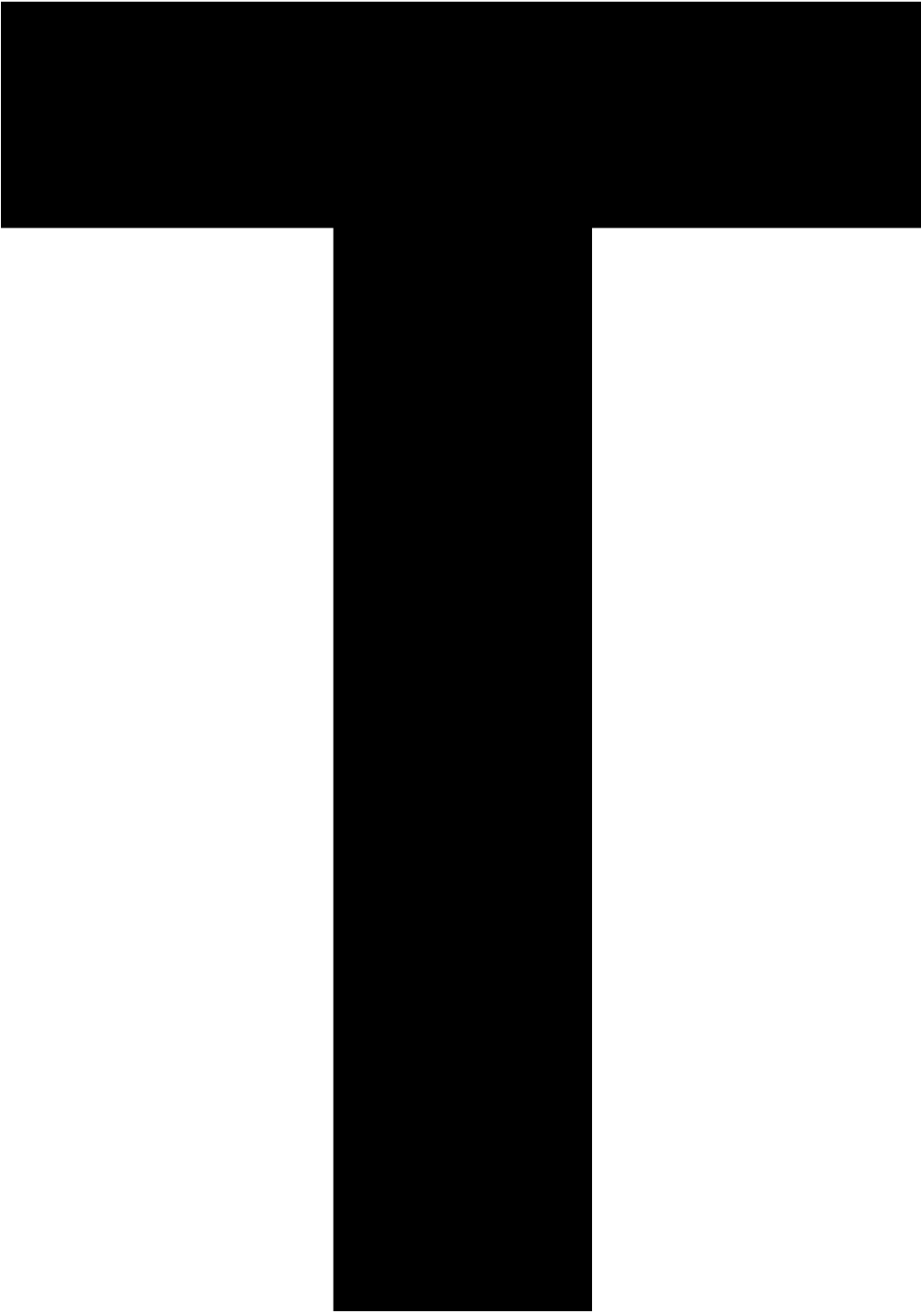
e

C

h



e



e

m

o

e



sa



u



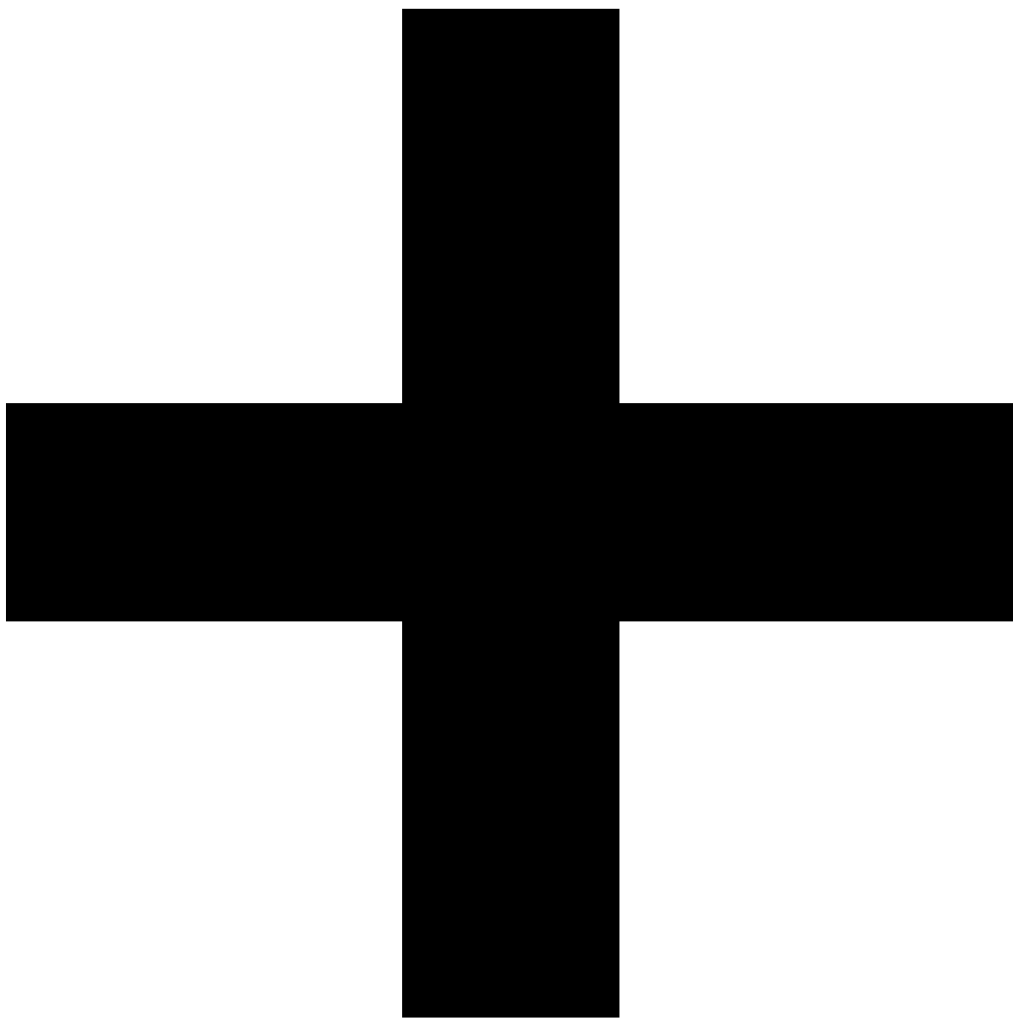
S



sa

J

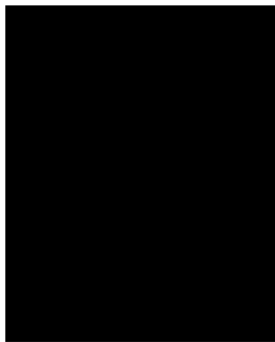
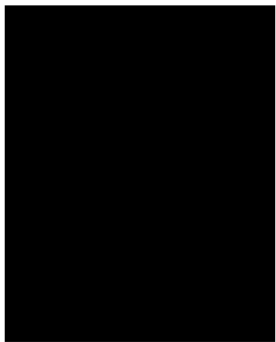
sa

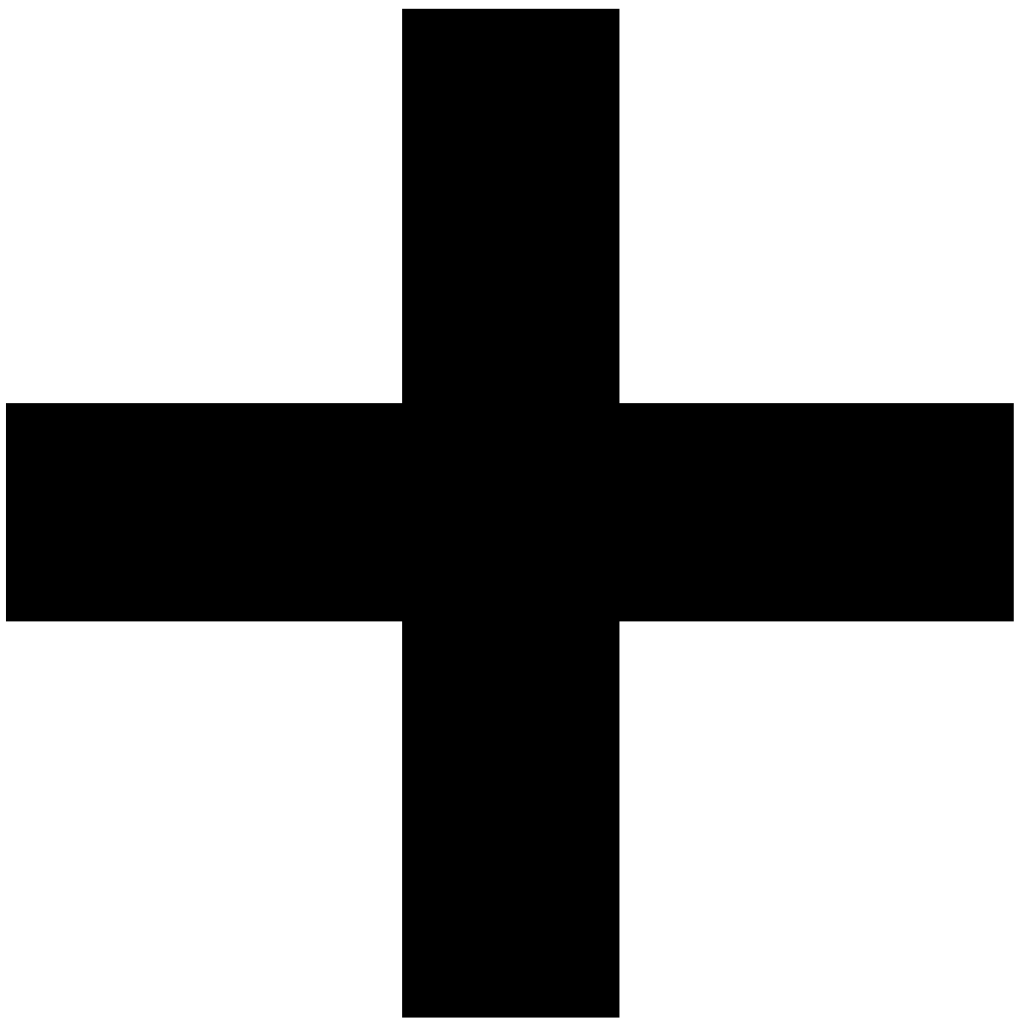


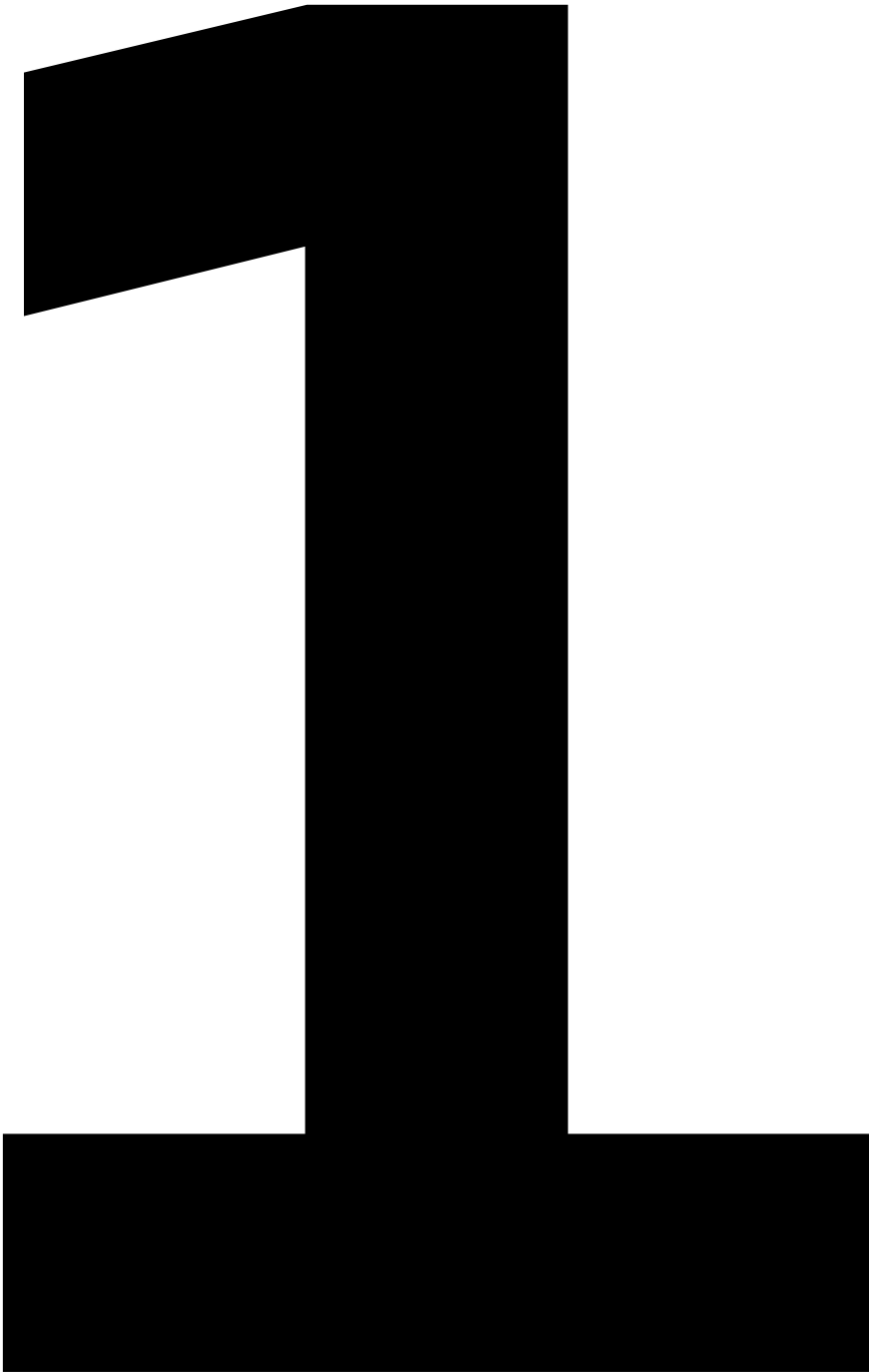
4

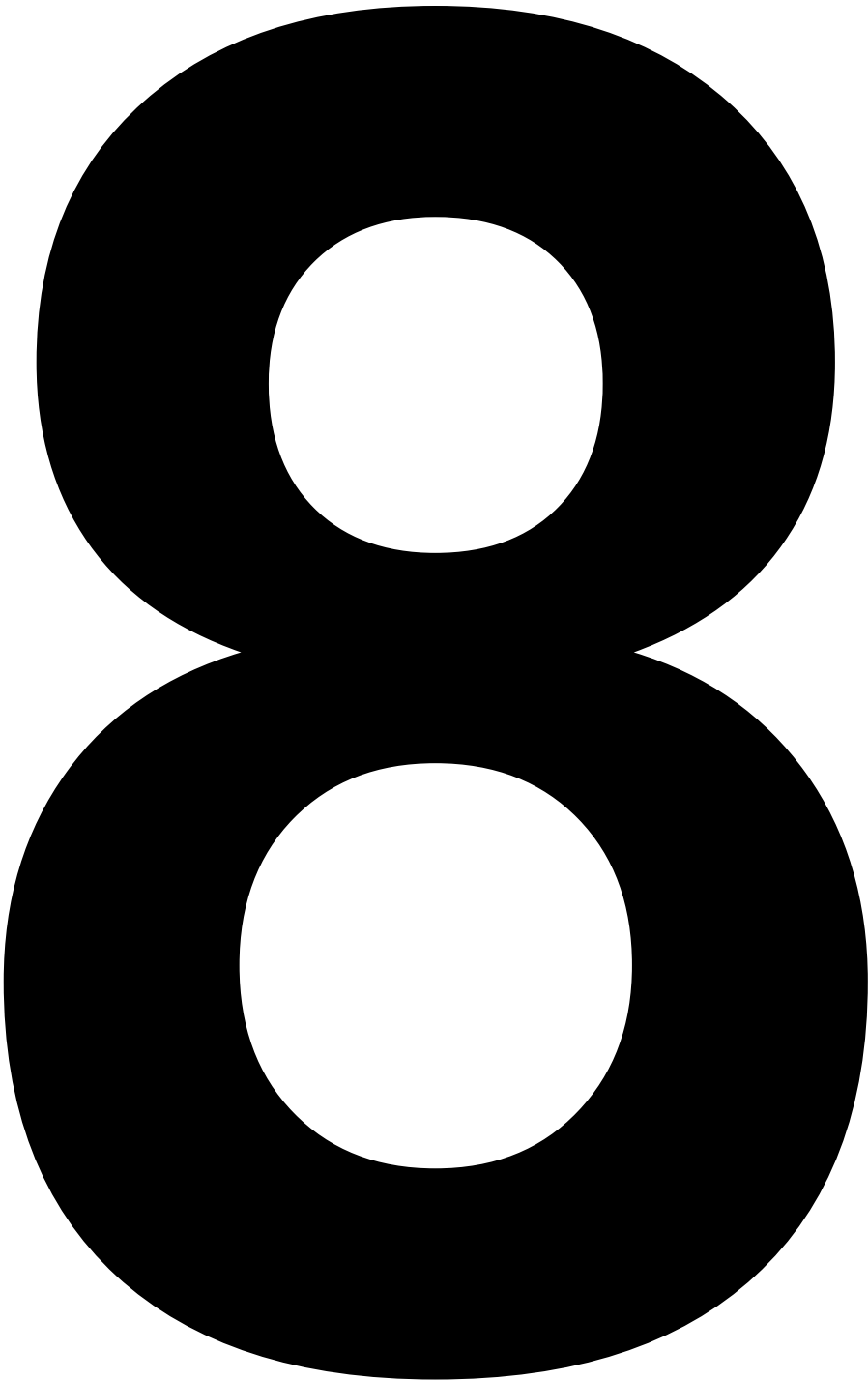


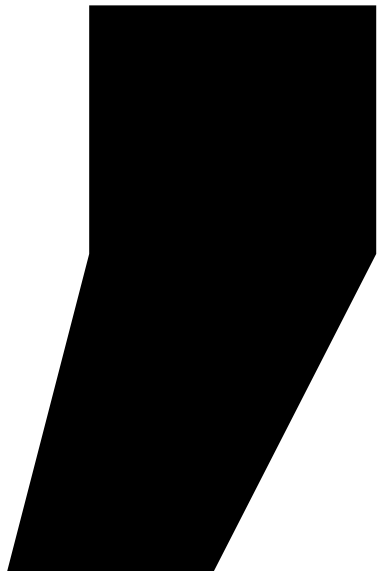
5



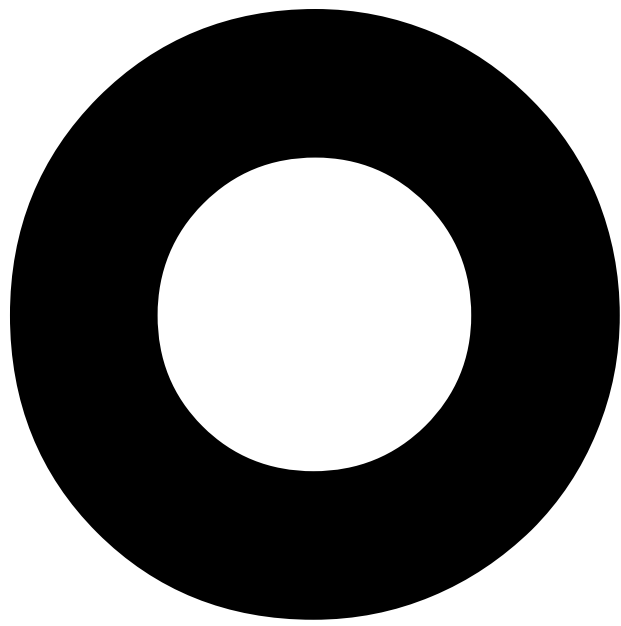








5



C

