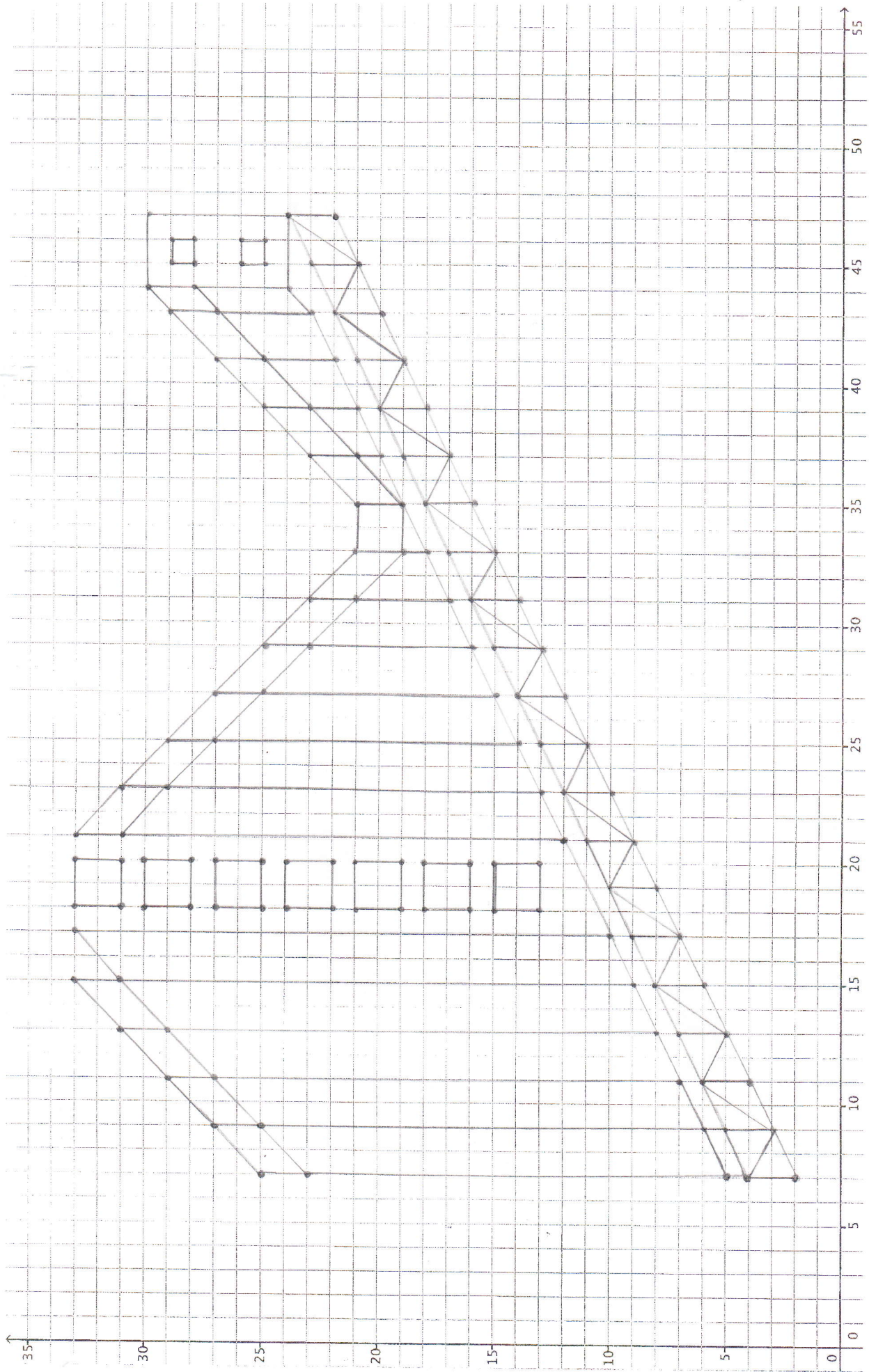
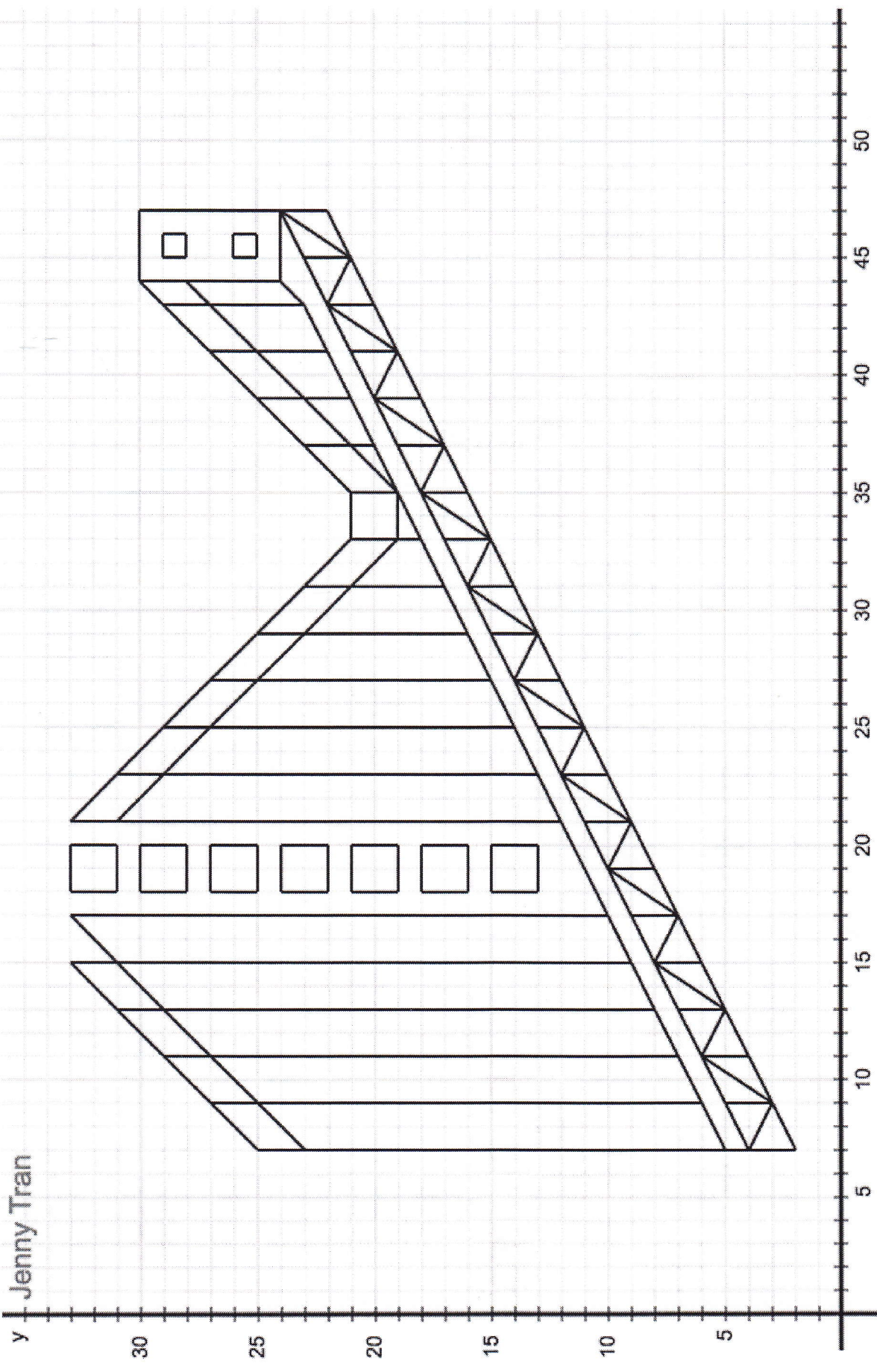


A decorative border of red, swirling spiral patterns frames the entire page. The spirals are of varying sizes and orientations, creating a continuous, intricate pattern around the central text.

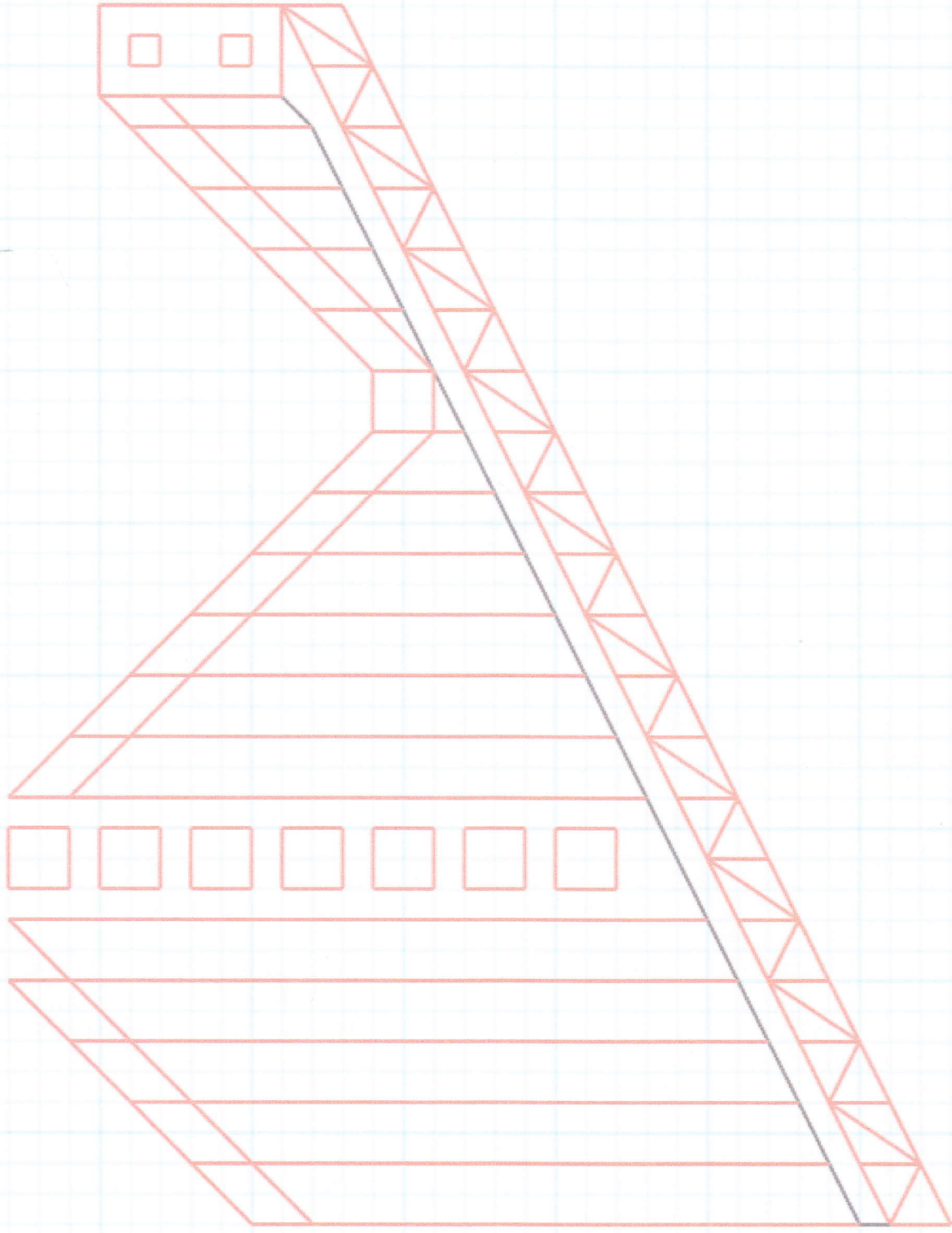
The Golden Gate Bridge

Jenny Fran
March 3, 2014
Algebra 1





Jenny Tran



y 30 25 20 15 10 5

5 10 15 20 25 30 35 40 45 50

List of Equations

Vertical Lines

Pts	Equations	Constraints
AP-U	$x = 47$	$22 \leq y \leq 24$
V-AQ	$x = 7$	$4 \leq y \leq 5$
BP-BJ	$x = 7$	$23 \leq y \leq 25$
BJ-AQ	$x = 7$	$5 \leq y \leq 23$
BQ-BK	$x = 9$	$25 \leq y \leq 27$
BK-AR	$x = 9$	$6 \leq y \leq 25$
BR-BL	$x = 11$	$27 \leq y \leq 29$
BL-AS	$x = 11$	$7 \leq y \leq 27$
BS-BM	$x = 13$	$29 \leq y \leq 31$
BM-AT	$x = 13$	$8 \leq y \leq 29$
BT-BN	$x = 15$	$31 \leq y \leq 33$
BN-AU	$x = 15$	$9 \leq y \leq 31$
BO-AV	$x = 17$	$10 \leq y \leq 33$
BU-BW	$x = 18$	$31 \leq x \leq 33$
BU-BX	$x = 20$	$31 \leq y \leq 33$
BY-CA	$x = 18$	$28 \leq y \leq 30$
BZ-CB	$x = 20$	$28 \leq y \leq 30$
CC-CE	$x = 18$	$25 \leq y \leq 27$
CD-CF	$x = 20$	$25 \leq y \leq 27$
CG-CI	$x = 18$	$22 \leq y \leq 24$
CH-CJ	$x = 20$	$22 \leq y \leq 24$

CK-CM	$x = 18$	$19 \leq y \leq 21$
CL-CN	$x = 20$	$19 \leq y \leq 21$
CO-CQ	$x = 18$	$16 \leq y \leq 18$
CP-CR	$x = 20$	$16 \leq y \leq 18$
CS-CU	$x = 18$	$13 \leq y \leq 15$
CT-CV	$x = 20$	$13 \leq y \leq 15$
CW-DJ	$x = 21$	$31 \leq y \leq 33$
DJ-AW	$x = 21$	$12 \leq y \leq 31$
CX-DK	$x = 23$	$29 \leq y \leq 31$
DK-AX	$x = 23$	$13 \leq y \leq 29$
CY-DL	$x = 25$	$27 \leq y \leq 29$
DL-AY	$x = 25$	$14 \leq y \leq 27$
CZ-DM	$x = 27$	$25 \leq y \leq 27$
DM-AZ	$x = 27$	$15 \leq y \leq 25$
DA-DN	$x = 27$	$23 \leq y \leq 25$
DN-BA	$x = 29$	$16 \leq y \leq 23$
DB-DO	$x = 31$	$21 \leq y \leq 23$
DO-BB	$x = 31$	$17 \leq y \leq 21$
DC-DP	$x = 33$	$19 \leq y \leq 21$
DP-BC	$x = 33$	$18 \leq y \leq 19$
DD-BD	$x = 35$	$19 \leq y \leq 21$
DE-DQ	$x = 37$	$21 \leq y \leq 23$
DQ-BE	$x = 37$	$20 \leq y \leq 21$
DF-DR	$x = 39$	$23 \leq y \leq 25$

O-AJ	$x = 35$	$16 \leq y \leq 18$
P-AK	$x = 37$	$17 \leq y \leq 19$
Q-AL	$x = 39$	$18 \leq y \leq 20$
R-AM	$x = 41$	$19 \leq y \leq 21$
S-AN	$x = 43$	$20 \leq y \leq 22$
T-AO	$x = 45$	$21 \leq y \leq 23$

Horizontal Lines

Pts	Equations	Constraints
BI-AP	$y = 24$	$44 \leq x \leq 47$
BU-BV	$y = 33$	$18 \leq x \leq 20$
BW-BX	$y = 31$	$18 \leq x \leq 20$
BY-BZ	$y = 30$	$18 \leq x \leq 20$
BI-AP	$y = 24$	$44 \leq x \leq 47$
BU-BV	$y = 33$	$18 \leq x \leq 20$
BW-BX	$y = 31$	$18 \leq x \leq 20$
BY-BZ	$y = 30$	$18 \leq x \leq 20$
CA-CB	$y = 28$	$18 \leq x \leq 20$
CC-CD	$y = 27$	$18 \leq x \leq 20$
CE-CF	$y = 25$	$18 \leq y \leq 20$
CG-CH	$y = 24$	$18 \leq x \leq 20$
CI-CJ	$y = 22$	$18 \leq x \leq 20$
CK-CL	$y = 21$	$18 \leq x \leq 20$
CM-CN	$y = 19$	$18 \leq x \leq 20$

DR-BF	$x = 39$	$21 \leq y \leq 23$
DG-DS	$x = 41$	$25 \leq y \leq 27$
DS-BG	$x = 41$	$22 \leq y \leq 25$
DH-DT	$x = 43$	$27 \leq y \leq 29$
DT-BH	$x = 43$	$23 \leq y \leq 27$
DH-DU	$x = 44$	$28 \leq y \leq 30$
BI-DU	$x = 44$	$24 \leq y \leq 28$
DV-DY	$x = 45$	$28 \leq y \leq 29$
DX-DZ	$x = 46$	$28 \leq y \leq 29$
EA-EC	$x = 45$	$25 \leq y \leq 26$
EB-ED	$x = 46$	$25 \leq y \leq 26$
DW-AP	$x = 47$	$24 \leq y \leq 30$
B-W	$x = 9$	$3 \leq y \leq 5$
C-X	$x = 11$	$4 \leq y \leq 6$
D-Y	$x = 13$	$5 \leq y \leq 7$
E-Z	$x = 15$	$6 \leq y \leq 8$
F-AA	$x = 17$	$7 \leq y \leq 9$
G-AB	$x = 19$	$8 \leq y \leq 10$
H-AC	$x = 21$	$9 \leq y \leq 11$
I-AD	$x = 23$	$10 \leq y \leq 12$
J-AE	$x = 25$	$11 \leq y \leq 13$
K-AF	$x = 27$	$12 \leq y \leq 14$
L-AG	$x = 29$	$13 \leq y \leq 15$
M-AH	$x = 31$	$14 \leq y \leq 16$
N-AI	$x = 33$	$15 \leq y \leq 17$

CO-CP	$y = 18$	$18 \leq x \leq 20$
CQ-CR	$y = 16$	$18 \leq x \leq 20$
CS-CT	$y = 15$	$18 \leq x \leq 20$
CU-CV	$y = 13$	$18 \leq x \leq 20$
DV-DX	$y = 29$	$45 \leq x \leq 46$
DY-DZ	$y = 28$	$45 \leq x \leq 46$
EA-EB	$y = 26$	$45 \leq x \leq 46$
EC-ED	$y = 25$	$45 \leq x \leq 46$
DH-DW	$y = 30$	$44 \leq x \leq 47$
DC-DD	$y = 21$	$33 \leq x \leq 35$
DP-DQ	$y = 19$	$33 \leq x \leq 35$

Negatively-Sloped Lines

Pts	Equations	Constraints
DJ-DK	$y_{DJ-DK} = -1x + 52$	$21 \leq x \leq 23$
DK-DL	$y_{DK-DL} = -1x + 52$	$23 \leq x \leq 25$
DL-DM	$y_{DL-DM} = -1x + 52$	$25 \leq x \leq 27$
DM-DN	$y_{DM-DN} = -1x + 52$	$27 \leq x \leq 29$
DN-DO	$y_{DN-DO} = -1x + 52$	$29 \leq x \leq 31$
DO-DP	$y_{DO-DP} = -1x + 52$	$31 \leq x \leq 33$
CW-CX	$y_{CW-CX} = -1x + 54$	$21 \leq x \leq 23$
CX-CY	$y_{CX-CY} = -1x + 54$	$23 \leq x \leq 25$
CY-CZ	$y_{CY-CZ} = -1x + 54$	$25 \leq x \leq 27$

CZ-DA	$y_{CZ-DA} = -1x + 54$	$27 \leq x \leq 29$
DA-DB	$y_{DA-DB} = -1x + 52$	$29 \leq x \leq 31$
DB-DC	$y_{DB-DC} = -1x + 52$	$31 \leq x \leq 33$
B-V	$y_{B-V} = -\frac{1}{2}x + \frac{15}{2}$	$7 \leq x \leq 9$
D-X	$y_{D-X} = -\frac{1}{2}x + \frac{23}{2}$	$11 \leq x \leq 13$
F-Z	$y_{F-Z} = -\frac{1}{2}x + \frac{31}{2}$	$15 \leq x \leq 17$
H-AB	$y_{H-AB} = -\frac{1}{2}x + \frac{39}{2}$	$19 \leq x \leq 21$
J-AD	$y_{J-AD} = -\frac{1}{2}x + \frac{47}{2}$	$23 \leq x \leq 25$
L-AF	$y_{L-AF} = -\frac{1}{2}x + \frac{55}{2}$	$27 \leq x \leq 29$
N-AH	$y_{N-AH} = -\frac{1}{2}x + \frac{63}{2}$	$31 \leq x \leq 33$
P-AJ	$y_{P-AJ} = -\frac{1}{2}x + \frac{71}{2}$	$35 \leq x \leq 37$
R-AL	$y_{R-AL} = -\frac{1}{2}x + \frac{79}{2}$	$39 \leq x \leq 41$
T-AN	$y_{T-AN} = -\frac{1}{2}x + \frac{87}{2}$	$43 \leq x \leq 45$

Positively-Sloped Lines

Pts	Equations	Constraints
A-B	$y_{A-B} = \frac{1}{2}x - \frac{3}{2}$	$7 \leq x \leq 9$
B-C	$y_{B-C} = \frac{1}{2}x - \frac{3}{2}$	$9 \leq x \leq 11$
C-D	$y_{C-D} = \frac{1}{2}x - \frac{3}{2}$	$11 \leq x \leq 13$
D-E	$y_{D-E} = \frac{1}{2}x - \frac{3}{2}$	$13 \leq x \leq 15$
E-F	$y_{E-F} = \frac{1}{2}x - \frac{3}{2}$	$15 \leq x \leq 17$
F-G	$y_{F-G} = \frac{1}{2}x - \frac{3}{2}$	$17 \leq x \leq 19$
G-H	$y_{G-H} = \frac{1}{2}x - \frac{3}{2}$	$19 \leq x \leq 21$
H-I	$y_{H-I} = \frac{1}{2}x - \frac{3}{2}$	$21 \leq x \leq 23$

I-J	$y_{I-J} = \frac{1}{2}x - \frac{3}{2}$	$23 \leq x \leq 25$
J-K	$y_{J-K} = \frac{1}{2}x - \frac{3}{2}$	$25 \leq x \leq 27$
K-L	$y_{K-L} = \frac{1}{2}x - \frac{3}{2}$	$27 \leq x \leq 29$
L-M	$y_{L-M} = \frac{1}{2}x - \frac{3}{2}$	$29 \leq x \leq 31$
M-N	$y_{M-N} = \frac{1}{2}x - \frac{3}{2}$	$31 \leq x \leq 33$
N-O	$y_{N-O} = \frac{1}{2}x - \frac{3}{2}$	$33 \leq x \leq 35$
O-P	$y_{O-P} = \frac{1}{2}x - \frac{3}{2}$	$35 \leq x \leq 37$
P-Q	$y_{P-Q} = \frac{1}{2}x - \frac{3}{2}$	$37 \leq x \leq 39$
Q-R	$y_{Q-R} = \frac{1}{2}x - \frac{3}{2}$	$39 \leq x \leq 41$
R-S	$y_{R-S} = \frac{1}{2}x - \frac{3}{2}$	$41 \leq x \leq 43$
S-T	$y_{S-T} = \frac{1}{2}x - \frac{3}{2}$	$43 \leq x \leq 45$
T-U	$y_{T-U} = \frac{1}{2}x - \frac{3}{2}$	$45 \leq x \leq 47$
V-W	$y_{V-W} = \frac{1}{2}x + \frac{1}{2}$	$7 \leq x \leq 9$
W-X	$y_{W-X} = \frac{1}{2}x + \frac{1}{2}$	$9 \leq x \leq 11$
X-Y	$y_{X-Y} = \frac{1}{2}x + \frac{1}{2}$	$11 \leq x \leq 13$
Y-Z	$y_{Y-Z} = \frac{1}{2}x + \frac{1}{2}$	$13 \leq x \leq 15$
Z-AA	$y_{Z-AA} = \frac{1}{2}x + \frac{1}{2}$	$15 \leq x \leq 17$
AA-AB	$y_{AA-AB} = \frac{1}{2}x + \frac{1}{2}$	$17 \leq x \leq 19$
AB-AC	$y_{AB-AC} = \frac{1}{2}x + \frac{1}{2}$	$19 \leq x \leq 21$
AC-AD	$y_{AC-AD} = \frac{1}{2}x + \frac{1}{2}$	$21 \leq x \leq 23$
AD-AE	$y_{AD-AE} = \frac{1}{2}x + \frac{1}{2}$	$23 \leq x \leq 25$
AE-AF	$y_{AE-AF} = \frac{1}{2}x + \frac{1}{2}$	$25 \leq x \leq 27$
AF-AG	$y_{AF-AG} = \frac{1}{2}x + \frac{1}{2}$	$27 \leq x \leq 29$
AG-AH	$y_{AG-AH} = \frac{1}{2}x + \frac{1}{2}$	$29 \leq x \leq 31$

AH-AI	$y_{AH-AI} = \frac{1}{2}x + \frac{1}{2}$	$31 \leq x \leq 33$
AI-AJ	$y_{AI-AJ} = \frac{1}{2}x + \frac{1}{2}$	$33 \leq x \leq 35$
AJ-AK	$y_{AJ-AK} = \frac{1}{2}x + \frac{1}{2}$	$35 \leq x \leq 37$
AK-AL	$y_{AK-AL} = \frac{1}{2}x + \frac{1}{2}$	$37 \leq x \leq 39$
AL-AM	$y_{AL-AM} = \frac{1}{2}x + \frac{1}{2}$	$39 \leq x \leq 41$
AM-AN	$y_{AM-AN} = \frac{1}{2}x + \frac{1}{2}$	$41 \leq x \leq 43$
AN-AO	$y_{AN-AO} = \frac{1}{2}x + \frac{1}{2}$	$43 \leq x \leq 45$
AO-AP	$y_{AO-AP} = \frac{1}{2}x + \frac{1}{2}$	$45 \leq x \leq 47$
AQ-AR	$y_{AQ-AR} = \frac{1}{2}x + \frac{3}{2}$	$7 \leq x \leq 9$
AR-AS	$y_{AR-AS} = \frac{1}{2}x + \frac{3}{2}$	$9 \leq x \leq 11$
AS-AT	$y_{AS-AT} = \frac{1}{2}x + \frac{3}{2}$	$11 \leq x \leq 13$
AT-AU	$y_{AT-AU} = \frac{1}{2}x + \frac{3}{2}$	$13 \leq x \leq 15$
AU-AV	$y_{AU-AV} = \frac{1}{2}x + \frac{3}{2}$	$15 \leq x \leq 17$
AV-AW	$y_{AV-AW} = \frac{1}{2}x + \frac{3}{2}$	$17 \leq x \leq 19$
AW-AX	$y_{AW-AX} = \frac{1}{2}x + \frac{3}{2}$	$19 \leq x \leq 21$
AX-AY	$y_{AX-AY} = \frac{1}{2}x + \frac{3}{2}$	$21 \leq x \leq 23$
AY-AZ	$y_{AY-AZ} = \frac{1}{2}x + \frac{3}{2}$	$23 \leq x \leq 25$
AZ-BA	$y_{AZ-BA} = \frac{1}{2}x + \frac{3}{2}$	$25 \leq x \leq 27$
BA-BB	$y_{BA-BB} = \frac{1}{2}x + \frac{3}{2}$	$27 \leq x \leq 29$
BB-BC	$y_{BB-BC} = \frac{1}{2}x + \frac{3}{2}$	$29 \leq x \leq 31$
BC-BD	$y_{BC-BD} = \frac{1}{2}x + \frac{3}{2}$	$31 \leq x \leq 33$
BD-BE	$y_{BD-BE} = \frac{1}{2}x + \frac{3}{2}$	$33 \leq x \leq 35$
BE-BF	$y_{BE-BF} = \frac{1}{2}x + \frac{3}{2}$	$35 \leq x \leq 37$

BF-BG	$y_{BF-BG} = \frac{1}{2}x + \frac{3}{2}$	$39 \leq x \leq 41$
BG-BH	$y_{BG-BH} = \frac{1}{2}x + \frac{3}{2}$	$41 \leq x \leq 43$
BH-BI	$y_{BH-BI} = 1x - 20$	$43 \leq x \leq 44$
BJ-BK	$y_{BJ-BK} = 1x + 16$	$7 \leq x \leq 9$
BK-BL	$y_{BK-BL} = 1x + 16$	$9 \leq x \leq 11$
BL-BM	$y_{BL-BM} = 1x + 16$	$11 \leq x \leq 13$
BM-BN	$y_{BM-BN} = 1x + 16$	$13 \leq x \leq 15$
BN-BO	$y_{BN-BO} = 1x + 16$	$15 \leq x \leq 17$
BP-BQ	$y_{BP-BQ} = 1x + 18$	$7 \leq x \leq 9$
BQ-BR	$y_{BQ-BR} = 1x + 18$	$9 \leq x \leq 11$
BR-BS	$y_{BR-BS} = 1x + 18$	$11 \leq x \leq 13$
BS-BT	$y_{BS-BT} = 1x + 18$	$13 \leq x \leq 15$
BD-DQ	$y_{BD-DQ} = 1x - 16$	$35 \leq x \leq 37$
DQ-DR	$y_{DQ-DR} = 1x - 16$	$37 \leq x \leq 39$
DR-DS	$y_{DR-DS} = 1x - 16$	$39 \leq x \leq 41$
DS-DT	$y_{DS-DT} = 1x - 16$	$41 \leq x \leq 43$
DT-DU	$y_{DT-DU} = 1x - 16$	$43 \leq x \leq 45$
DD-DE	$y_{DD-DE} = 1x - 14$	$35 \leq x \leq 37$
DE-DF	$y_{DE-DF} = 1x - 14$	$37 \leq x \leq 39$
DF-DG	$y_{DF-DG} = 1x - 14$	$39 \leq x \leq 41$
DG-DH	$y_{DG-DH} = 1x - 14$	$41 \leq x \leq 43$
DH-DI	$y_{DH-DI} = 1x - 14$	$43 \leq x \leq 44$
B-X	$y_{B-X} = \frac{3}{2}x - \frac{21}{2}$	$9 \leq x \leq 11$
D-Z	$y_{D-Z} = \frac{3}{2}x - \frac{29}{2}$	$13 \leq x \leq 15$

F-AB	$y_{F-AB} = \frac{3}{2}x - \frac{37}{2}$	$17 \leq x \leq 19$
H-AD	$y_{H-AD} = \frac{3}{2}x - \frac{45}{2}$	$21 \leq x \leq 23$
J-AF	$y_{J-AF} = \frac{3}{2}x - \frac{53}{2}$	$25 \leq x \leq 27$
L-AH	$y_{L-AH} = \frac{3}{2}x - \frac{61}{2}$	$29 \leq x \leq 31$
N-AJ	$y_{N-AJ} = \frac{3}{2}x - \frac{69}{2}$	$33 \leq x \leq 35$
P-AL	$y_{P-AL} = \frac{3}{2}x - \frac{77}{2}$	$37 \leq x \leq 39$
R-AN	$y_{R-AN} = \frac{3}{2}x - \frac{85}{2}$	$41 \leq x \leq 43$
T-AP	$y_{T-AP} = \frac{3}{2}x - \frac{93}{2}$	$45 \leq x \leq 47$

Work For Graph It Art

Positive Slopes

1) A-B (7,2) (9,3)

$$m = \frac{\Delta Y}{\Delta X} = \frac{2-3}{7-9} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$2 = \frac{1}{2}(7) + b$$

$$2 = \frac{7}{2} + b$$

$$-\frac{7}{2} - \frac{7}{2}$$

$$-\frac{3}{2} = b$$

2) B-C (9,3) (11,4)

$$m = \frac{\Delta Y}{\Delta X} = \frac{3-4}{9-11} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$3 = \frac{1}{2}(9) + b$$

$$3 = \frac{9}{2} + b$$

$$-\frac{9}{2} - \frac{9}{2}$$

$$-\frac{3}{2} = b$$

3) C-D (11,4) (13,5)

$$m = \frac{\Delta Y}{\Delta X} = \frac{4-5}{11-13} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$4 = \frac{1}{2}(11) + b$$

$$4 = \frac{11}{2} + b$$

$$-\frac{11}{2} - \frac{11}{2}$$

$$-\frac{3}{2} = b$$

4) D-E (13,5) (15,6)

$$m = \frac{\Delta Y}{\Delta X} = \frac{5-6}{13-15} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$5 = \frac{1}{2}(13) + b$$

$$5 = \frac{13}{2} + b$$

$$-\frac{13}{2} - \frac{13}{2}$$

$$-\frac{3}{2} = b$$

5) E-F (15,6) (17,7)

$$m = \frac{\Delta Y}{\Delta X} = \frac{6-7}{15-17} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$6 = \frac{1}{2}(15) + b$$

$$6 = \frac{15}{2} + b$$

$$-\frac{15}{2} - \frac{15}{2}$$

$$-\frac{3}{2} = b$$

6) F-G (17,7) (19,8)

$$m = \frac{\Delta Y}{\Delta X} = \frac{7-8}{17-19} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$7 = \frac{1}{2}(17) + b$$

$$7 = \frac{17}{2} + b$$

$$-\frac{17}{2} - \frac{17}{2}$$

$$-\frac{3}{2} = b$$

7) G-H (19,8) (21,9)

$$m = \frac{\Delta Y}{\Delta X} = \frac{8-9}{19-21} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$8 = \frac{1}{2}(19) + b$$

$$8 = \frac{19}{2} + b$$

$$-\frac{19}{2} - \frac{19}{2}$$

$$-\frac{3}{2} = b$$

8) H-I (21,9) (23,11)

$$m = \frac{\Delta Y}{\Delta X} = \frac{9-11}{21-23} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$9 = \frac{1}{2}(21) + b$$

$$9 = \frac{21}{2} + b$$

$$-\frac{21}{2} - \frac{21}{2}$$

$$-\frac{3}{2} = b$$

9) I-J (23,11) (25,13)

$$m = \frac{\Delta Y}{\Delta X} = \frac{11-13}{23-25} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$11 = \frac{1}{2}(23) + b$$

$$11 = \frac{23}{2} + b$$

$$+ \frac{23}{2} - \frac{23}{2}$$

$$-\frac{3}{2} = b$$

10) J-K (25,13) (27,15)

$$m = \frac{\Delta Y}{\Delta X} = \frac{13-15}{25-27} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$13 = \frac{1}{2}(25) + b$$

$$13 = \frac{25}{2} + b$$

$$-\frac{25}{2} - \frac{25}{2}$$

$$-\frac{3}{2} = b$$

11) K-L (27,15) (29,17)

$$m = \frac{\Delta Y}{\Delta X} = \frac{15-17}{27-29} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$15 = \frac{1}{2}(27) + b$$

$$15 = \frac{27}{2} + b$$

$$-\frac{27}{2} - \frac{27}{2}$$

$$-\frac{3}{2} = b$$

12) L-M (29,17) (31,19)

$$m = \frac{\Delta Y}{\Delta X} = \frac{17-19}{29-31} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$17 = \frac{1}{2}(29) + b$$

$$17 = \frac{29}{2} + b$$

$$-\frac{29}{2} - \frac{29}{2}$$

$$-\frac{3}{2} = b$$

13) M-N (31,19) (33,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{19-21}{31-33} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$19 = \frac{1}{2}(31) + b$$

$$19 = \frac{31}{2} + b$$

$$-\frac{31}{2} - \frac{31}{2}$$

$$-\frac{3}{2} = b$$

14) N-O (33,21) (35,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-23}{33-35} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$21 = \frac{1}{2}(33) + b$$

$$21 = \frac{33}{2} + b$$

$$-\frac{33}{2} - \frac{33}{2}$$

$$-\frac{3}{2} = b$$

15) O-P (35,23) (37,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-25}{35-37} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$23 = \frac{1}{2}(35) + b$$

$$23 = \frac{35}{2} + b$$

$$-\frac{35}{2} - \frac{35}{2}$$

$$-\frac{3}{2} = b$$

15) P-Q (37,25) (39,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-27}{37-39} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$25 = \frac{1}{2}(37) + b$$

$$25 = \frac{37}{2} + b$$

$$-\frac{37}{2} - \frac{37}{2}$$

$$-\frac{3}{2} = b$$

13) Q-R (39,27) (41,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-29}{39-41} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$27 = \frac{1}{2}(39) + b$$

$$27 = \frac{39}{2} + b$$

$$-\frac{39}{2} - \frac{39}{2}$$

$$-\frac{3}{2} = b$$

14) R-S (41,29) (43,31)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-31}{41-43} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$29 = \frac{1}{2}(41) + b$$

$$29 = \frac{41}{2} + b$$

$$-\frac{41}{2} - \frac{41}{2}$$

$$\frac{3}{2} = b$$

15) S-T (43,31) (45,33)

$$m = \frac{\Delta Y}{\Delta X} = \frac{31-33}{43-45} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$31 = \frac{1}{2}(43) + b$$

$$31 = \frac{43}{2} + b$$

$$-\frac{43}{2} - \frac{43}{2}$$

$$-\frac{3}{2} = b$$

16) T-U (45,33) (47,35)

$$m = \frac{\Delta Y}{\Delta X} = \frac{31-33}{43-45} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$33 = \frac{1}{2}(45) + b$$

$$33 = \frac{45}{2} + b$$

$$-\frac{45}{2} - \frac{45}{2}$$

$$-\frac{3}{2} = b$$

17) U-W (7,4) (9,5)

$$m = \frac{\Delta Y}{\Delta X} = \frac{4-5}{7-9} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$4 = \frac{1}{2}(7) + b$$

$$4 = \frac{7}{2} + b$$

$$-\frac{7}{2} - \frac{7}{2}$$

$$\frac{1}{2} = b$$

18) W-X (9,5) (11,6)

$$m = \frac{\Delta Y}{\Delta X} = \frac{6-7}{9-11} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$5 = \frac{1}{2}(9) + b$$

$$5 = \frac{9}{2} + b$$

$$-\frac{9}{2} - \frac{9}{2}$$

$$\frac{1}{2} = b$$

19) X-Y (11,6) (13,7)

$$m = \frac{\Delta Y}{\Delta X} = \frac{6-7}{11-13} = -\frac{2}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$6 = \frac{1}{2}(11) + b$$

$$6 = \frac{11}{2} + b$$

$$-\frac{11}{2} - \frac{11}{2}$$

$$\frac{1}{2} = b$$

20) Y-Z (13,7) (15,8)

$$m = \frac{\Delta Y}{\Delta X} = \frac{7-8}{13-15} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$7 = \frac{1}{2}(13) + b$$

$$7 = \frac{13}{2} + b$$

$$-\frac{13}{2} - \frac{13}{2}$$

$$\frac{1}{2} = b$$

21) Z-AA (15,8) (17,9)

$$m = \frac{\Delta Y}{\Delta X} = \frac{8-9}{15-17} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$8 = \frac{1}{2}(15) + b$$

$$8 = \frac{15}{2} + b$$

$$-\frac{15}{2} - \frac{15}{2}$$

$$\frac{1}{2} = b$$

22) AA-AB (17,9) (19,10)

$$m = \frac{\Delta Y}{\Delta X} = \frac{9-10}{17-19} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$9 = \frac{1}{2}(17) + b$$

$$9 = \frac{17}{2} + b$$

$$-\frac{17}{2} - \frac{17}{2}$$

$$\frac{1}{2} = b$$

23) AB-AC (19,10) (21,11)

$$m = \frac{\Delta Y}{\Delta X} = \frac{10-11}{19-21} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$10 = \frac{1}{2}(19) + b$$

$$10 = \frac{19}{2} + b$$

$$-\frac{19}{2} - \frac{19}{2}$$

$$\frac{1}{2} = b$$

24) AC-AD (21,11) (23,12)

$$m = \frac{\Delta Y}{\Delta X} = \frac{11-12}{21-23} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$11 = \frac{1}{2}(21) + b$$

$$11 = \frac{21}{2} + b$$

$$-\frac{21}{2} - \frac{21}{2}$$

$$\frac{1}{2} = b$$

25) AD-AE (23,12) (25,13)

$$m = \frac{\Delta Y}{\Delta X} = \frac{12-13}{23-25} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$12 = \frac{1}{2}(23) + b$$

$$12 = \frac{23}{2} + b$$

$$-\frac{23}{2} - \frac{23}{2}$$

$$\frac{1}{2} = b$$

26) AE-AF (25,13) (27,14)

$$m = \frac{\Delta Y}{\Delta X} = \frac{13-14}{25-27} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$13 = \frac{1}{2}(25) + b$$

$$13 = \frac{25}{2} + b$$

$$-\frac{25}{2} - \frac{25}{2}$$

$$\frac{1}{2} = b$$

27) AF-AG (27,14) (29,15)

$$m = \frac{\Delta Y}{\Delta X} = \frac{14-15}{27-29} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$14 = \frac{1}{2}(27) + b$$

$$14 = \frac{27}{2} + b$$

$$-\frac{27}{2} - \frac{27}{2}$$

$$\frac{1}{2} = b$$

28) AG-AH (29,15) (31,16)

$$m = \frac{\Delta Y}{\Delta X} = \frac{15-16}{29-31} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$15 = \frac{1}{2}(29) + b$$

$$15 = \frac{29}{2} + b$$

$$-\frac{29}{2} - \frac{29}{2}$$

$$\frac{1}{2} = b$$

29) AH-AI (31,16) (33,17)

$$m = \frac{\Delta Y}{\Delta X} = \frac{16-17}{31-33} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$16 = \frac{1}{2}(31) + b$$

$$16 = \frac{31}{2} + b$$

$$-\frac{31}{2} - \frac{31}{2}$$

$$\frac{1}{2} = b$$

30) AI-AJ (33,17) (35,18)

$$m = \frac{\Delta Y}{\Delta X} = \frac{17-18}{33-35} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$17 = \frac{1}{2}(33) + b$$

$$17 = \frac{33}{2} + b$$

$$-\frac{33}{2} - \frac{33}{2}$$

$$\frac{1}{2} = b$$

31) AJ-AK (35,18) (37,19)

$$m = \frac{\Delta Y}{\Delta X} = \frac{18-19}{35-37} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$18 = \frac{1}{2}(35) + b$$

$$18 = \frac{35}{2} + b$$

$$-\frac{35}{2} - \frac{35}{2}$$

$$\frac{1}{2} = b$$

33) AK-AL (37,19) (41,20)

$$m = \frac{\Delta Y}{\Delta X} = \frac{19-21}{37-41} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$19 = \frac{1}{2}(37) + b$$

$$19 = \frac{37}{2} + b$$

$$-\frac{37}{2} - \frac{37}{2}$$

$$\frac{1}{2} = b$$

34) AL-AM (41,20) (43,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{20-21}{41-43} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$20 = \frac{1}{2}(41) + b$$

$$20 = \frac{41}{2} + b$$

$$-\frac{41}{2} - \frac{41}{2}$$

$$\frac{1}{2} = b$$

32) AM-AN (43,21) (45,22)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-22}{43-45} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$21 = \frac{1}{2}(43) + b$$

$$21 = \frac{43}{2} + b$$

$$-\frac{43}{2} - \frac{43}{2}$$

$$\frac{1}{2} = b$$

33) AN-AO (45,22) (47,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{22-23}{45-47} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$22 = \frac{1}{2}(45) + b$$

$$22 = \frac{45}{2} + b$$

$$-\frac{45}{2} - \frac{45}{2}$$

$$\frac{1}{2} = b$$

34) AO-AP (47,23) (49,24)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-24}{47-49} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$23 = \frac{1}{2}(47) + b$$

$$23 = \frac{47}{2} + b$$

$$-\frac{47}{2} - \frac{47}{2}$$

$$\frac{1}{2} = b$$

35) AQ-AR (7,5) (9,6)

$$m = \frac{\Delta Y}{\Delta X} = \frac{5-6}{7-9} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$5 = \frac{1}{2}(7) + b$$

$$5 = \frac{7}{2} + b$$

$$-\frac{7}{2} - \frac{7}{2}$$

$$\frac{3}{2} = b$$

37) AR-AS (9,6) (11,7)

$$m = \frac{\Delta Y}{\Delta X} = \frac{6-7}{9-11} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$6 = \frac{1}{2}(9) + b$$

$$6 = \frac{9}{2} + b$$

$$-\frac{9}{2} - \frac{9}{2}$$

$$\frac{3}{2} = b$$

38) AS-AT (11,7) (13,8)

$$m = \frac{\Delta Y}{\Delta X} = \frac{7-8}{11-13} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$7 = \frac{1}{2}(11) + b$$

$$7 = \frac{11}{2} + b$$

$$-\frac{11}{2} - \frac{11}{2}$$

$$\frac{3}{2} = b$$

39) AT-AU (13,8) (15,9)

$$m = \frac{\Delta Y}{\Delta X} = \frac{8-9}{13-15} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$8 = \frac{1}{2}(13) + b$$

$$8 = \frac{13}{2} + b$$

$$-\frac{13}{2} - \frac{13}{2}$$

$$\frac{3}{2} = b$$

40) AU-AV (15,9) (17,10)

$$m = \frac{\Delta Y}{\Delta X} = \frac{9-10}{15-17} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$9 = \frac{1}{2}(15) + b$$

$$9 = \frac{15}{2} + b$$

$$-\frac{15}{2} - \frac{15}{2}$$

$$\frac{3}{2} = b$$

41) AV-AW (17,10) (21,12)

$$m = \frac{\Delta Y}{\Delta X} = \frac{10-12}{17-21} = -\frac{2}{4} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$10 = \frac{1}{2}(17) + b$$

$$10 = \frac{17}{2} + b$$

$$-\frac{17}{2} - \frac{17}{2}$$

$$\frac{3}{2} = b$$

42) AW-AX (21,12) (23,13)

$$m = \frac{\Delta Y}{\Delta X} = \frac{12-13}{21-23} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$12 = \frac{1}{2}(21) + b$$

$$12 = \frac{21}{2} + b$$

$$-\frac{21}{2} - \frac{21}{2}$$

$$\frac{3}{2} = b$$

43) AX-AY (23,13) (25,14)

$$m = \frac{\Delta Y}{\Delta X} = \frac{13-14}{23-25} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$13 = \frac{1}{2}(23) + b$$

$$13 = \frac{23}{2} + b$$

$$-\frac{23}{2} - \frac{23}{2}$$

$$\frac{3}{2} = b$$

44) AY-AZ (25,14) (27,15)

$$m = \frac{\Delta Y}{\Delta X} = \frac{14-15}{25-27} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$14 = \frac{1}{2}(25) + b$$

$$14 = \frac{25}{2} + b$$

$$-\frac{25}{2} - \frac{25}{2}$$

$$\frac{3}{2} = b$$

45) AZ-BA (27,15) (29,16)

$$m = \frac{\Delta Y}{\Delta X} = \frac{15-16}{27-29} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$15 = \frac{1}{2}(27) + b$$

$$15 = \frac{27}{2} + b$$

$$-\frac{27}{2} - \frac{27}{2}$$

$$\frac{3}{2} = b$$

46) BA-BB (29,16) (31,17)

$$m = \frac{\Delta Y}{\Delta X} = \frac{16-17}{29-31} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$16 = \frac{1}{2}(29) + b$$

$$16 = \frac{29}{2} + b$$

$$-\frac{29}{2} - \frac{29}{2}$$

$$\frac{3}{2} = b$$

47) BB-BC (31,17) (33,18)

$$m = \frac{\Delta Y}{\Delta X} = \frac{17-18}{31-33} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$17 = \frac{1}{2}(31) + b$$

$$17 = \frac{31}{2} + b$$

$$-\frac{31}{2} - \frac{31}{2}$$

$$\frac{3}{2} = b$$

48) BC-BD (33,18) (35,19)

$$m = \frac{\Delta Y}{\Delta X} = \frac{18-19}{33-35} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$18 = \frac{1}{2}(33) + b$$

$$18 = \frac{33}{2} + b$$

$$-\frac{33}{2} - \frac{33}{2}$$

$$\frac{3}{2} = b$$

49) BD-BE (35,19) (37,20)

$$m = \frac{\Delta Y}{\Delta X} = \frac{19-20}{35-37} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$19 = \frac{1}{2}(35) + b$$

$$19 = \frac{35}{2} + b$$

$$-\frac{35}{2} - \frac{35}{2}$$

$$\frac{3}{2} = b$$

50) BE-BF (37,20) (39,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{16-17}{29-31} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$20 = \frac{1}{2}(37) + b$$

$$20 = \frac{37}{2} + b$$

$$-\frac{37}{2} - \frac{37}{2}$$

$$\frac{3}{2} = b$$

51) BF-BG (39,21) (41,22)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-22}{39-41} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$21 = \frac{1}{2}(39) + b$$

$$21 = \frac{39}{2} + b$$

$$-\frac{39}{2} - \frac{39}{2}$$

$$\frac{3}{2} = b$$

52) BG-BH (41,22) (43,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{22-23}{41-43} = -\frac{1}{2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$22 = \frac{1}{2}(41) + b$$

$$22 = \frac{41}{2} + b$$

$$-\frac{41}{2} - \frac{41}{2}$$

$$\frac{3}{2} = b$$

53) BH-BI (43,23) (44,24)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-24}{43-44} = -\frac{1}{1} = \frac{1}{1}$$

$$y = mx + b$$

$$y = x + b$$

$$23 = 1(43) + b$$

$$23 = 43 + b$$

$$-43 - 43$$

$$-20 = b$$

54) BJ-BK (7,23) (9,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-25}{7-9} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$23 = 1(7) + b$$

$$23 = 7 + b$$

$$-7 - 7$$

$$16 = b$$

55) BK-BL (9,25) (11,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-25}{7-9} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$25 = 1(9) + b$$

$$25 = 9 + b$$

$$-9 - 9$$

$$16 = b$$

56) BL-BM (11,27) (13,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-29}{11-13} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$27 = 1(11) + b$$

$$27 = 11 + b$$

$$-11 - 11$$

$$16 = b$$

57) BM-BN (13,29) (15,31)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-31}{13-15} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$29 = 1(13) + b$$

$$29 = 13 + b$$

$$-13 - 13$$

$$16 = b$$

58) BN-BO (15,31) (17,33)

$$m = \frac{\Delta Y}{\Delta X} = \frac{31-33}{15-17} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$31 = 1(15) + b$$

$$31 = 15 + b$$

$$-15 - 15$$

$$16 = b$$

59) BP-BQ (7,25) (9,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-27}{7-9} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$25 = 1(7) + b$$

$$25 = 7 + b$$

$$-7 - 7$$

$$18 = b$$

60) BQ-BR (9,27) (11,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-29}{9-11} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$27 = 1(9) + b$$

$$27 = 9 + b$$

$$-9 - 9$$

$$18 = b$$

61) BR-BS (11,29) (13,31)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-31}{11-13} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$29 = 1(11) + b$$

$$29 = 11 + b$$

$$-11 - 11$$

$$18 = b$$

62) BS-BT (13,31) (15,33)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-31}{11-13} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$31 = 1(13) + b$$

$$31 = 13 + b$$

$$-13 - 13$$

$$18 = b$$

63) DD-DE (35,19) (37,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{19-21}{35-37} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$19 = 1(35) + b$$

$$19 = 35 + b$$

$$-35 - 35$$

$$-14 = b$$

64) DE-DF (37,21) (39,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-23}{37-39} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$21 = 1(37) + b$$

$$21 = 37 + b$$

$$-37 - 37$$

$$-14 = b$$

65) DF-DG (39,23) (41,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-25}{39-41} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$23 = 1(39) + b$$

$$23 = 39 + b$$

$$-39 - 39$$

$$-14 = b$$

66) DG-DH (41,25) (43,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-27}{41-43} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$25 = 1(41) + b$$

$$25 = 41 + b$$

$$-41 - 41$$

$$-14 = b$$

67) DH-DI (43,27) (45,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-29}{43-45} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$27 = 1(43) + b$$

$$27 = 43 + b$$

$$-43 - 43$$

$$-14 = b$$

68) DQ-DR (35,21) (37,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-23}{35-37} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$21 = 1(35) + b$$

$$21 = 35 + b$$

$$-35 - 35$$

$$-16 = b$$

69) DR-DS (37,23) (39,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-23}{39-37} = \frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$23 = 1(37) + b$$

$$23 = 37 + b$$

$$-37 - 37$$

$$-16 = b$$

70) DS-DT (39,25) (41,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-27}{39-41} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$25 = 1(39) + b$$

$$25 = 39 + b$$

$$-39 - 39$$

$$-16 = b$$

71) DT-DU (41,27) (43,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-29}{41-43} = -\frac{2}{2} = \frac{2}{2}$$

$$y = mx + b$$

$$y = x + b$$

$$27 = 1(41) + b$$

$$27 = 41 + b$$

$$-41 - 41$$

$$-16 = b$$

72) DU-ED (43,27) (44,28)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-24}{43-44} = -\frac{1}{1} = \frac{1}{1}$$

$$y = mx + b$$

$$y = x + b$$

$$27 = 1(43) + b$$

$$27 = 43 + b$$

$$-43 - 43$$

$$-16 = b$$

73) B-X (9,3) (11,6)

$$m = \frac{\Delta Y}{\Delta X} = \frac{3-6}{9-11} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$3 = \frac{3}{2}(9) + b$$

$$3 = \frac{27}{2} + b$$

$$-\frac{27}{2} - \frac{27}{2}$$

$$-\frac{21}{2} = b$$

74) D-Z (13,5) (15,8)

$$m = \frac{\Delta Y}{\Delta X} = \frac{5-8}{13-15} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$5 = \frac{3}{2}(13) + b$$

$$5 = \frac{39}{2} + b$$

$$-\frac{39}{2} - \frac{39}{2}$$

$$-\frac{29}{2} = b$$

75) F-AB (17,7) (19,10)

$$m = \frac{\Delta Y}{\Delta X} = \frac{7-9}{17-19} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$7 = \frac{3}{2}(17) + b$$

$$7 = \frac{51}{2} + b$$

$$-\frac{51}{2} - \frac{51}{2}$$

$$-\frac{37}{2} = b$$

76) H-AD (21,9) (23,12)

$$m = \frac{\Delta Y}{\Delta X} = \frac{9-12}{21-23} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$9 = \frac{3}{2}(21) + b$$

$$9 = \frac{63}{2} + b$$

$$-\frac{63}{2} - \frac{63}{2}$$

$$-\frac{45}{2} = b$$

77) J-AF (25,11) (27,14)

$$m = \frac{\Delta Y}{\Delta X} = \frac{11-14}{25-27} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$11 = \frac{3}{2}(25) + b$$

$$11 = \frac{75}{2} + b$$

$$-\frac{75}{2} - \frac{75}{2}$$

$$-\frac{53}{2} = b$$

78) L-AH (29,13) (31,16)

$$m = \frac{\Delta Y}{\Delta X} = \frac{13-16}{29-31} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$13 = \frac{3}{2}(29) + b$$

$$13 = \frac{87}{2} + b$$

$$-\frac{87}{2} - \frac{87}{2}$$

$$-\frac{61}{2} = b$$

79) N-AJ (33,15) (35,18)

$$m = \frac{\Delta Y}{\Delta X} = \frac{15-18}{33-35} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$15 = \frac{3}{2}(33) + b$$

$$15 = \frac{99}{2} + b$$

$$-\frac{99}{2} - \frac{99}{2}$$

$$-\frac{69}{2} = b$$

80) P-AL (37,17) (39,20)

$$m = \frac{\Delta Y}{\Delta X} = \frac{17-20}{35-37} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$17 = \frac{3}{2}(37) + b$$

$$17 = \frac{111}{2} + b$$

$$-\frac{111}{2} - \frac{111}{2}$$

$$-\frac{77}{2} = b$$

81) R-AN (41,19) (43,22)

$$m = \frac{\Delta Y}{\Delta X} = \frac{19-22}{41-43} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$19 = \frac{3}{2}(41) + b$$

$$19 = \frac{123}{2} + b$$

$$-\frac{123}{2} - \frac{123}{2}$$

$$-\frac{85}{2} = b$$

82) T-AP (45,21) (47,24)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-24}{45-47} = -\frac{3}{2} = \frac{3}{2}$$

$$y = mx + b$$

$$y = \frac{3}{2}x + b$$

$$21 = \frac{3}{2}(45) + b$$

$$21 = \frac{135}{2} + b$$

$$-\frac{135}{2} - \frac{135}{2}$$

$$-\frac{93}{2} = b$$

Negative Slopes

83) DJ-DK (21,31) (23,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{31-29}{21-23} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$31 = -1(21) + b$$

$$31 = -21 + b$$

$$+21 + 21$$

$$52 = b$$

84) DK-DL (23,29) (25,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-27}{23-25} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$29 = -1(23) + b$$

$$29 = -21 + b$$

$$+23 + 23$$

$$52 = b$$

85) DL-DM (25,27) (27,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{27-25}{25-27} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$27 = -1(25) + b$$

$$27 = -25 + b$$

$$+25 + 25$$

$$52 = b$$

86) DM-DN (27,25) (29,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-23}{27-29} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$25 = -1(27) + b$$

$$25 = -27 + b$$

$$+27 + 27$$

$$52 = b$$

87) DN-DO (29,23) (31,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-21}{29-31} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$23 = -1(29) + b$$

$$23 = -29 + b$$

$$+29 + 29$$

$$52 = b$$

88) DO-DP (31,21) (33,19)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-19}{31-33} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$21 = -1(31) + b$$

$$21 = -31 + b$$

$$+31 + 31$$

$$52 = b$$

89) CW-CX (21,33) (23,31)

$$m = \frac{\Delta Y}{\Delta X} = \frac{33-31}{21-23} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$33 = -1(21) + b$$

$$33 = -21 + b$$

$$+21 + 21$$

$$54 = b$$

90) CX-CY (23,31) (25,29)

$$m = \frac{\Delta Y}{\Delta X} = \frac{31-29}{23-25} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$31 = -1(23) + b$$

$$31 = -23 + b$$

$$+23 + 23$$

$$54 = b$$

91) CY-CZ (25,29) (27,27)

$$m = \frac{\Delta Y}{\Delta X} = \frac{29-27}{25-27} = \frac{2}{-2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$29 = -1(25) + b$$

$$29 = -25 + b$$

$$+35 + 35$$

$$54 = b$$

92) CZ-DA (27,27) (29,25)

$$m = \frac{\Delta Y}{\Delta X} = \frac{25-27}{29-27} = \frac{-2}{2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$27 = -1(27) + b$$

$$27 = -27 + b$$

$$+27 + 27$$

$$54 = b$$

93) DA-DB (29,25) (31,23)

$$m = \frac{\Delta Y}{\Delta X} = \frac{23-25}{31-29} = \frac{-2}{2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$25 = -1(29) + b$$

$$25 = -29 + b$$

$$+29 + 29$$

$$54 = b$$

94) DB-DC (31,23) (33,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{21-23}{33-31} = \frac{-2}{2} = -1$$

$$y = mx + b$$

$$y = -1x + b$$

$$23 = -1(31) + b$$

$$23 = -31 + b$$

$$+31 + 31$$

$$54 = b$$

95) U-B (7,4) (9,5)

$$m = \frac{\Delta Y}{\Delta X} = \frac{4-5}{7-9} = \frac{-1}{-2} = \frac{1}{2}$$

$$y = mx + b$$

$$y = \frac{1}{2}x + b$$

$$4 = \frac{1}{2}(7) + b$$

$$4 = \frac{7}{2} + b$$

$$+ \frac{7}{2} + \frac{7}{2}$$

$$\frac{15}{2} = b$$

96) D-X (11,6) (13,5)

$$m = \frac{\Delta Y}{\Delta X} = \frac{5-6}{13-11} = \frac{-1}{2} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$6 = -\frac{1}{2}(11) + b$$

$$6 = -\frac{11}{2} + b$$

$$+ \frac{11}{2} + \frac{11}{2}$$

$$\frac{23}{2} = b$$

97) F-Z (15,8) (17,7)

$$m = \frac{\Delta Y}{\Delta X} = \frac{7-8}{17-15} = \frac{-1}{2} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$8 = -\frac{1}{2}(15) + b$$

$$8 = -\frac{15}{2} + b$$

$$+ \frac{15}{2} + \frac{15}{2}$$

$$\frac{31}{2} = b$$

98) H-AB (19,10) (21,9)

$$m = \frac{\Delta Y}{\Delta X} = \frac{9-10}{21-19} = \frac{-1}{2} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$10 = -\frac{1}{2}(19) + b$$

$$10 = -\frac{19}{2} + b$$

$$+ \frac{19}{2} + \frac{19}{2}$$

$$-\frac{39}{2} = b$$

99) J-AD (23,12) (25,11)

$$m = \frac{\Delta Y}{\Delta X} = \frac{12-11}{23-25} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$12 = -\frac{1}{2}(23) + b$$

$$12 = -\frac{23}{2} + b$$

$$+ \frac{23}{2} + \frac{23}{2}$$

$$\frac{47}{2} = b$$

100) L-AF (27,14) (29,13)

$$m = \frac{\Delta Y}{\Delta X} = \frac{14-13}{27-29} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$14 = -\frac{1}{2}(27) + b$$

$$14 = -\frac{27}{2} + b$$

$$+ \frac{27}{2} + \frac{27}{2}$$

$$\frac{55}{2} = b$$

101) N-AH (31,16) (33,15)

$$m = \frac{\Delta Y}{\Delta X} = \frac{16-15}{31-33} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$16 = -\frac{1}{2}(31) + b$$

$$16 = -\frac{31}{2} + b$$

$$+ \frac{31}{2} + \frac{31}{2}$$

$$\frac{59}{2} = b$$

102) P-AJ (35,18) (37,17)

$$m = \frac{\Delta Y}{\Delta X} = \frac{18-17}{35-37} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$18 = -\frac{1}{2}(35) + b$$

$$18 = -\frac{35}{2} + b$$

$$+ \frac{35}{2} + \frac{35}{2}$$

$$\frac{61}{2} = b$$

103) R-AI (39,20) (41,19)

$$m = \frac{\Delta Y}{\Delta X} = \frac{20-19}{39-41} = -\frac{1}{2}$$

$$m = \frac{\Delta Y}{\Delta X} = \frac{12-11}{23-25} = -\frac{1}{2}$$

$$y = -\frac{1}{2}x + b$$

$$20 = -\frac{1}{2}(39) + b$$

$$20 = -\frac{39}{2} + b$$

$$+ \frac{39}{2} + \frac{39}{2}$$

$$\frac{79}{2} = b$$

104) T-AN (43,22) (45,21)

$$m = \frac{\Delta Y}{\Delta X} = \frac{22-21}{43-45} = -\frac{1}{2}$$

$$y = mx + b$$

$$y = -\frac{1}{2}x + b$$

$$22 = -\frac{1}{2}(43) + b$$

$$22 = -\frac{43}{2} + b$$

$$+ \frac{43}{2} + \frac{43}{2}$$

$$\frac{87}{2} = b$$

Parallel Lines

$$\text{A-B } y_{AB} = \frac{1}{2}x - \frac{3}{2}$$

$$\text{U-W } y_{UW} = \frac{1}{2}x + \frac{1}{2}$$

The lines A-B and U-W are parallel because they have the exact same slopes. The only difference is the y intercept. The line AB has $-\frac{3}{2}$ as a y intercept and the line UW has $\frac{1}{2}$ as a y intercept. Both lines have the same slope $\frac{1}{2}$ which makes the two lines parallel. That's why these two lines are parallel to each other.

Perpendicular Lines

$$\text{BJ-BK } y_{BJBK} = \frac{2}{2}x + 16$$

$$\text{DJ-DK } y_{DJDK} = -\frac{2}{2}x + 52$$

The lines BJ-BK and DJ-DK are perpendicular because the equations have slopes that are negative reciprocal of each other. In the equation $y_{BJBK} = \frac{2}{2}x + 16$ the slope is 1 and in the other equation $y_{DJDK} = -\frac{2}{2}x + 52$ the slope is a -1. The negative reciprocal of 1 is -1. That's why these two lines are perpendicular to each other.

Reflection

What I learn from this project was how to find the equation of a line. Learning how to find the equation of a line was difficult at first, but after a while it became very easy. I learn to find an equation of a line you first find m which is the slope then you plug m into $y = mx + b$. In the end you get a equation in $y = mx + b$ form. Another thing I learn from this project is how to tell the difference between parallel and perpendicular lines. Perpendicular lines are two lines that cross at 90° degrees. Parallel lines are two lines that do not intersect or touch at any point. That's what I learn from this project.

This project was helpful by helping me understand how to get slopes, equations, and how to draw a line on a graph. It helped me on a bunch of tests from doing so many of those lines. So on the test I actually finish the problems faster than I did on the project. I was so used to doing those kind of problems that I don't even have to think about the steps. In conclusion that's how this project help me.

My favorite part about this project is sewing the art onto the black foam - core board. It's my favorite part, because I like using a hammer to make the holes. But I mostly like it after I am finish with the sewing because it looks so cool when it's all finish. My least favorite part was entering the equations into the computer. It took a long time and it saves every 300 seconds. So when you are in the middle of typing it deletes everything you just type. Those are the parts I like and don't like.

If I get a chance to start all over I would do the sewing part different. I would try to do it like where you tie all the thread together. I would do it this way because it looks neater on the back. And I want my board too look neat on both sides. Even though most people don't pay attention to the back. So I would do the sewing part different if I can start all over.

I choose to create this image because I love scenes and love to visit tourist sites. I choose the Golden Gate Bridge instead of other bridges because the Golden Gate Bridge is the first bridge I ever visited. And it reminds me of a memory where my parents and I visited my dad's friend. It was a happy memory so that's why I wanted this image of this project.