- Scale $\geq \frac{\text{max}}{\#\text{ of boxes}}$
- round up to a number that is close to the value but easy to work with.
- label every other box for neatness
- draw arrows except into the axes

Name Schlansky
Mr. Schlansky

Date _____
Algebra II

Graphing Functions Given a Table

1.

x max:

6

Number of x boxes:

20

x scale:

$\text{Scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$

$\text{Scale} \geq \frac{6}{20}$

$\text{Scale} \geq .4$

scale = .5

y max:

144

Number of y boxes:

20

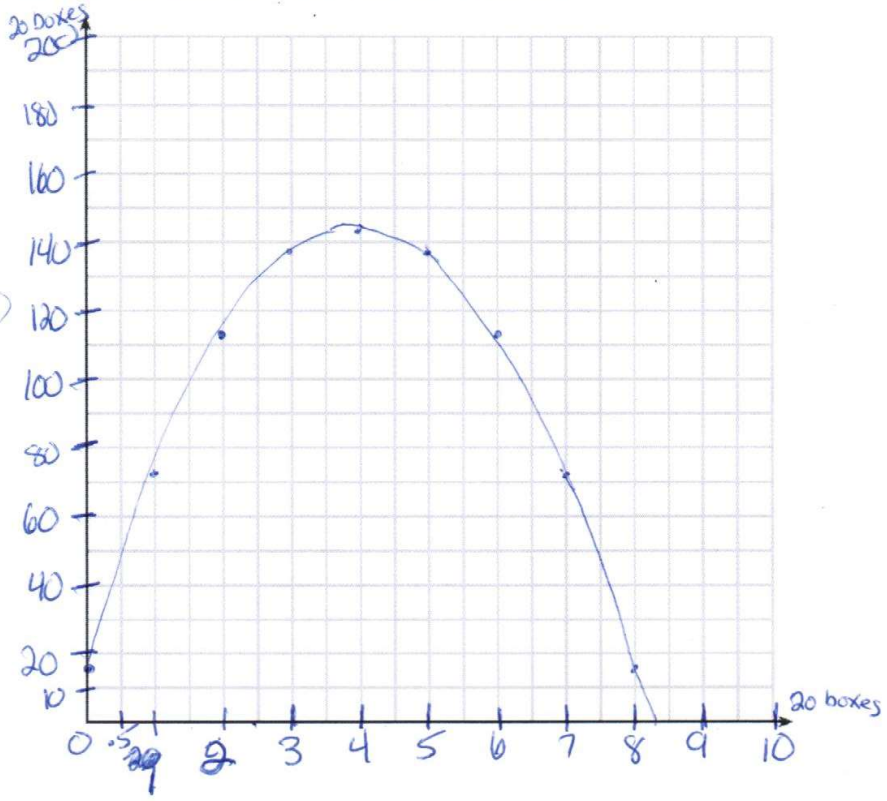
y scale:

$\text{Scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$

$\text{Scale} \geq \frac{144}{20}$

scale ≥ 7.2

scale = 10



x	y
0	16
1	72
2	112
3	136
4	144
5	136
6	112
7	72
8	16

2.

x max: 30

Number of x boxes: 20

x scale:

scale ≥ max / # of boxes

scale ≥ 30/20

scale ≥ 1.5

scale = 2

y max: 70

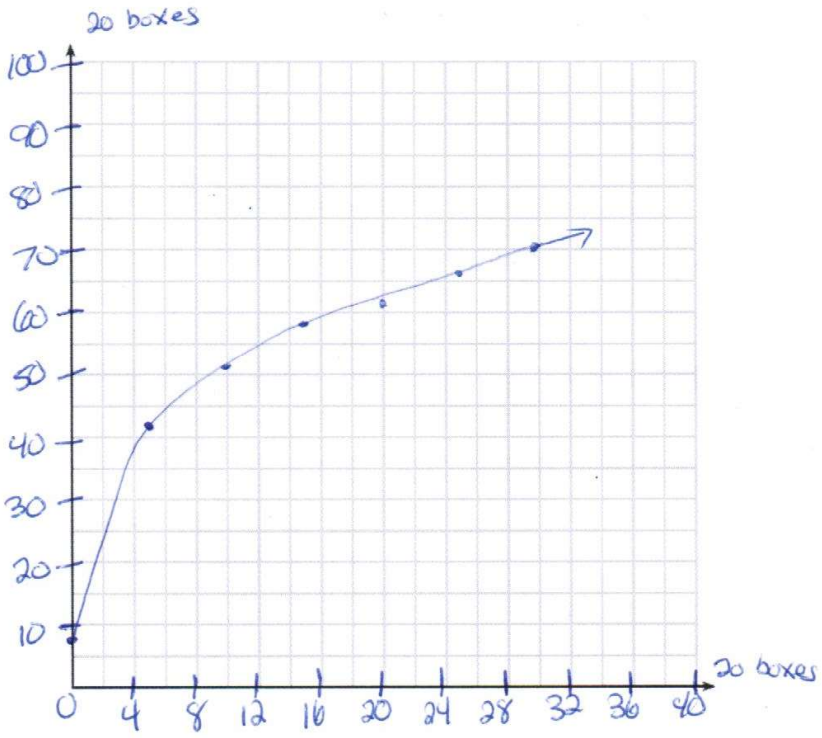
Number of y boxes: 20

y scale:

scale ≥ 70/20

scale ≥ 3.5

scale = 5



x	y
0	8
5	42
10	51
15	57
20	62
25	66
30	70

3.

x max: 200

Number of x boxes: 30

x scale: $\text{scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$ $\text{scale} \geq \frac{200}{30}$ $\text{scale} \geq 6.\overline{6}$ scale = 10

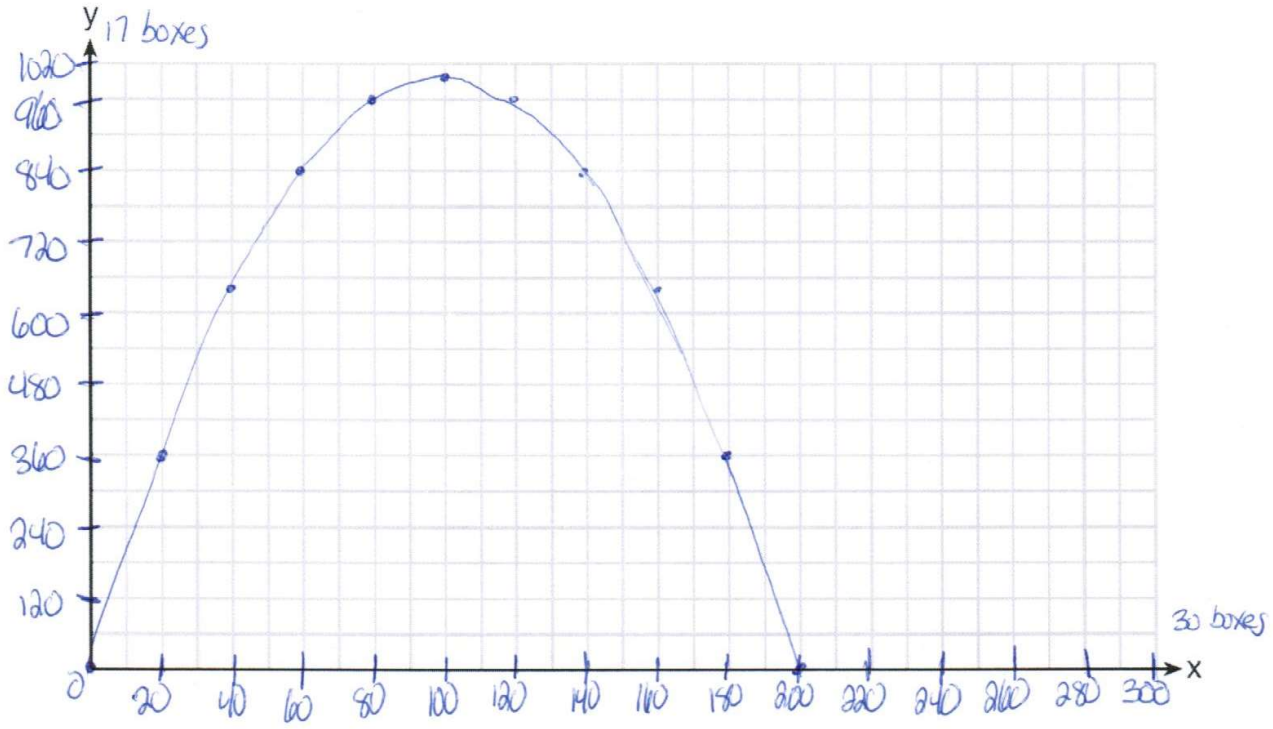
y max: 1000

Number of y boxes: 17

y scale: $\text{scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$ $\text{scale} \geq \frac{1000}{17}$ $\text{scale} \geq 58.8\ldots$ scale = 60

There's no reason to plot every single point. I plotted every other point. Just be sure to plot all key points (maximum, zeros)

x	y
0	0
10	190
20	360
30	510
40	640
50	750
60	840
70	910
80	960
90	990
100	1000
110	990
120	960
130	910
140	840
150	750
160	640
170	510
180	360
190	190
200	0



4.

x max: 40

Number of x boxes: 15

x scale:

scale ≥ max / # of boxes

scale ≥ 40/15

scale ≥ 2.6

scale = 3

y max: 292

Number of y boxes: 15

y scale:

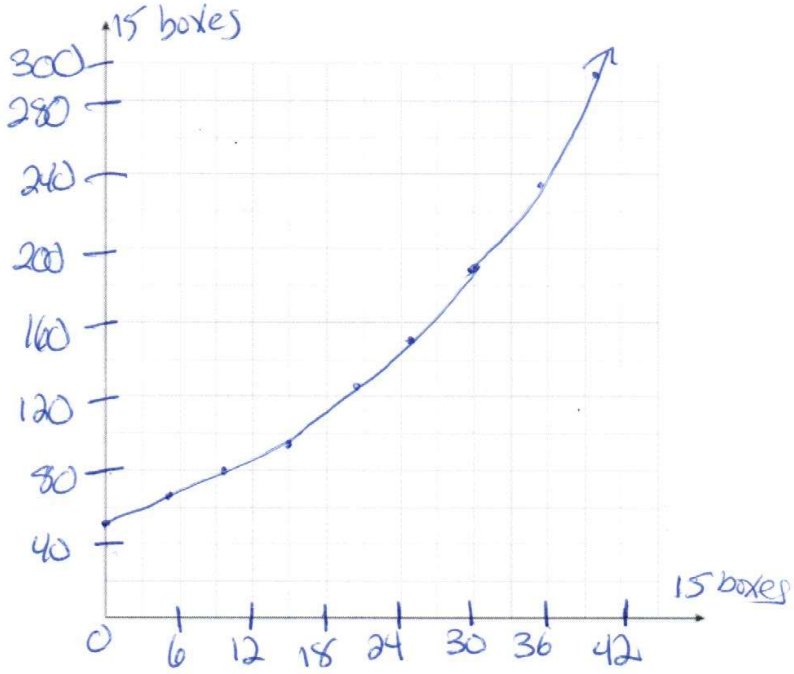
scale ≥ max / # of boxes

scale ≥ 292/15

scale ≥ 19.46

scale = 20

x	y
0	52
5	65
10	80
15	99
20	123
25	153
30	190
35	235
40	292



5.

x max: 35

Number of x boxes: 12

x scale: scale $\geq \frac{\text{max}}{\#\text{ of boxes}}$

scale $\geq \frac{35}{12}$

scale ≥ 2.916

scale = 3

y max: 63

Number of y boxes: 12

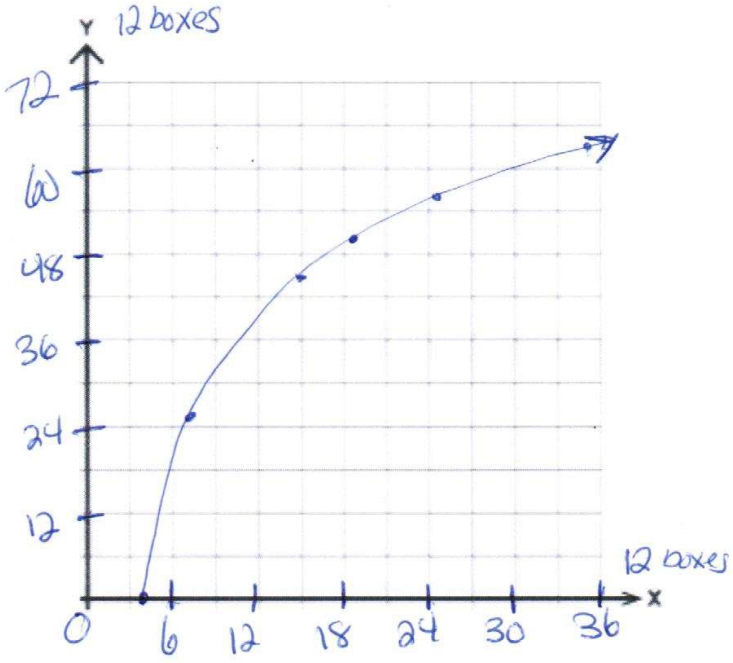
y scale: scale $\geq \frac{\text{max}}{\#\text{ of boxes}}$

scale $\geq \frac{63}{12}$

scale ≥ 5.25

scale = 6

x	y
4	0
7	25
15	45
19	50
25	56
35	63



6.

x max: 60

Number of x boxes: 25

x scale: $\text{scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$ scale = 3

$\text{scale} \geq \frac{60}{25}$

$\text{scale} \geq 2.4$

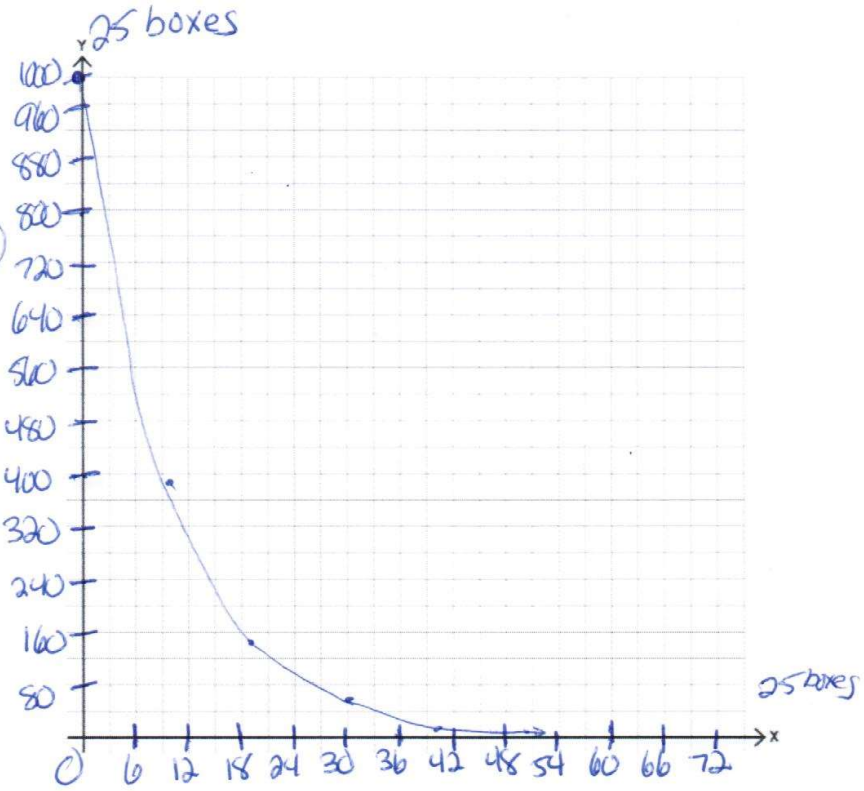
y max: 1000

Number of y boxes: 25

y scale: $\text{scale} \geq \frac{\text{max}}{\#\text{ of boxes}}$ scale = 40

$\text{scale} \geq \frac{1000}{25}$

$\text{scale} \geq 40$



x	y
0	1000
10	389
20	152
30	59
40	23
50	9
60	3

7.

x max: 50

Number of x boxes: 12

x scale:

scale ≥ max / # of boxes

scale ≥ 50/12

scale ≥ 4.16

scale = 5

y max: 80

Number of y boxes: 16

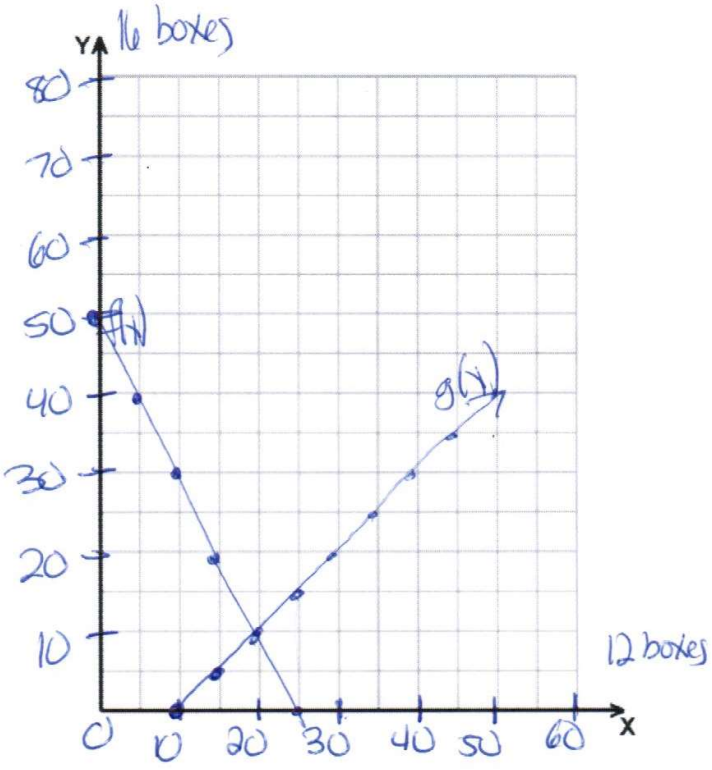
y scale:

scale ≥ max / # of boxes

scale ≥ 50/16

scale ≥ 3.125

scale = 5



x	f(x)
0	50
5	40
10	30
15	20
20	10
25	0

x	g(x)
10	0
15	5
20	10
25	15
30	20
35	25
40	30
45	35
50	40

*Look for the max between both tables

8.

x max: 8

Number of x boxes: 26

x scale:

Scale $\geq \frac{\text{max}}{\#\text{ of boxes}}$

Scale $\geq \frac{8}{26}$

Scale $\geq .3$

Scale $= \frac{1}{3}$ (every 3 boxes)

y max: 5000

Number of y boxes: 16

y scale:

Scale $\geq \frac{\text{max}}{\#\text{ of boxes}}$

Scale $\geq \frac{5000}{16}$

Scale ≥ 312.5

Scale $= 400$

x	f(x)
0	5000
1	4350
2	3785
3	3293
4	2865
5	2492
6	2168
7	1886
8	1641

x	g(x)
0	2000
1	2200
2	2420
3	2662
4	2928
5	3221
6	3543
7	3897
8	4287