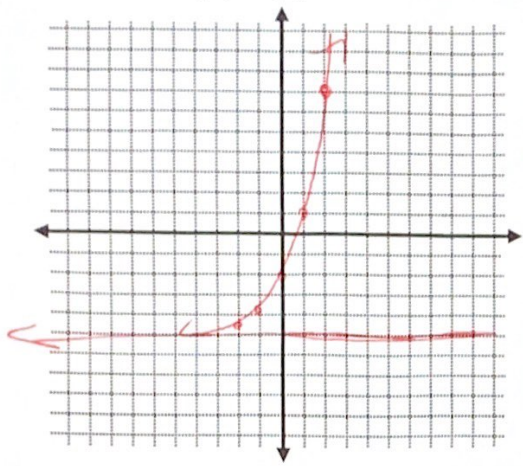


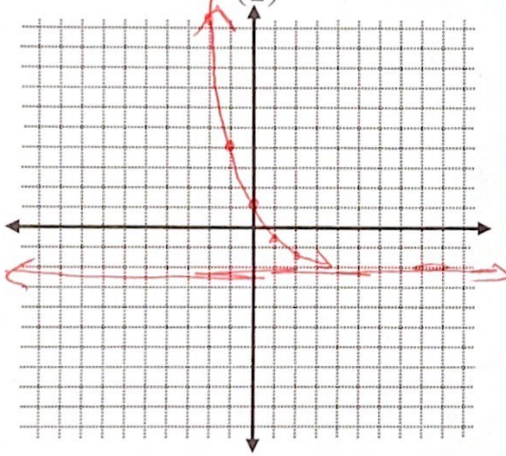
1. $f(x) = 3(2)^x - 5$



Domain: \mathbb{R} Range: $y > -5$
 X-intercept: $(1, 0)$ y-intercept: $(0, -2)$
 Interval of Increase: \mathbb{R} Interval of Decrease: N/A
 Maximum(s): N/A Minimum(s): N/A
 Asymptote: $y = -5$
 End-Behavior: as $x \rightarrow \infty, f(x) \rightarrow \infty$
 as $x \rightarrow -\infty, f(x) \rightarrow -5$
 Find the average rate of change from $x=0$ to $x=2$: 4.5

$$\begin{array}{r} x \ 4 \\ 2 \ 2 \ 7 \ 2 \ 9 \end{array} \quad \frac{9}{2}$$

2. $f(x) = 3\left(\frac{1}{2}\right)^x - 2$



Domain: \mathbb{R} Range: $y > -2$
 X-intercept: $(1, 0)$ y-intercept: $(0, 1)$
 Interval of Increase: N/A Interval of Decrease: \mathbb{R}
 Maximum(s): N/A Minimum(s): N/A
 Asymptote: $y = -2$
 End-Behavior: as $x \rightarrow \infty, f(x) \rightarrow -2$
 as $x \rightarrow -\infty, f(x) \rightarrow \infty$
 Find the average rate of change from $x=-2$ to $x=1$: -6

$$\begin{array}{r} x \ 4 \\ 1 \ 5 \ -2 \ -1 \ 10 \ 4 \ 15 \ 6 \end{array} \quad \frac{-6}{1}$$

3. Find the average rate of change for the following functions on the given interval.

a. $f(x) = \frac{3}{4}(2)^x, 2 \leq x \leq 5$

$$\begin{array}{r} x \ 4 \\ 3 \ 5 \ 5 \ 3 \ 24 \end{array} \quad 21$$

$$\frac{21}{3} = \boxed{7}$$

b. $f(x) = 2(5)^x, 1 \leq x \leq 3$

$$\begin{array}{r} x \ 4 \\ 2 \ 3 \ 10 \ 250 \end{array} \quad 240$$

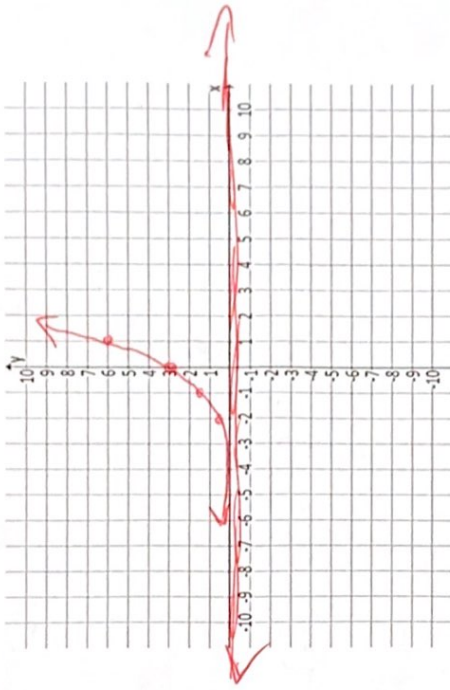
$$\frac{240}{2} = 120$$

Unit 7 – Graphing Practice

1. $f(x) = 3 \cdot 2^x$

Stretch 3
Growth 2

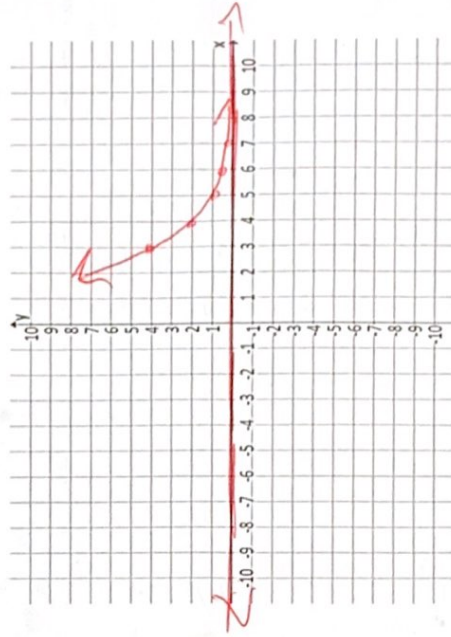
x	y
-2	.75
-1	1.5
0	3
1	6
2	12



2. $g(x) = \left(\frac{1}{2}\right)^{x+5}$

Decay $\frac{1}{2}$
Right 5

x	y
3	4
4	2
5	1
6	.5
7	.25



km

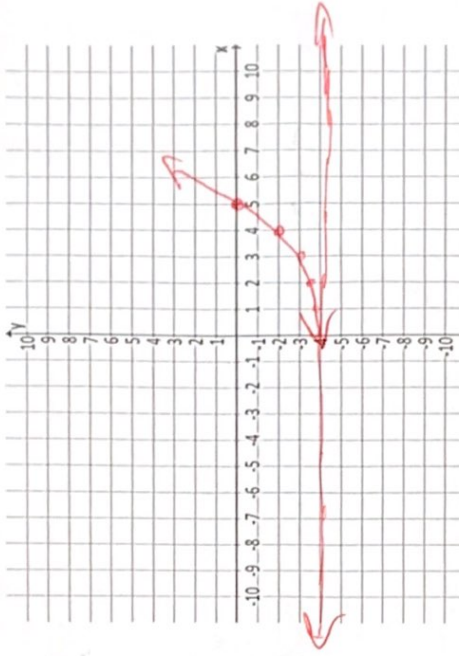
Unit 7 - Graphing Practice

flip

3. $h(x) = 2^{x-4}$

Growth 2
Right 3
Down 4

x	y
1	-3.75
2	-3.5
3	-3
4	-2
5	0



4. $p(x) = -4^{x+1}$

Reflect x
Growth 4
Left 1

x	y
-2	-25
-1	-4
0	-16
1	-64
2	-256

