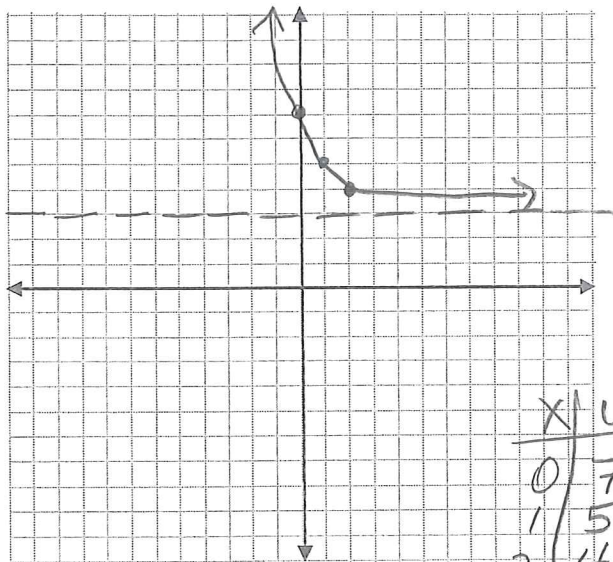


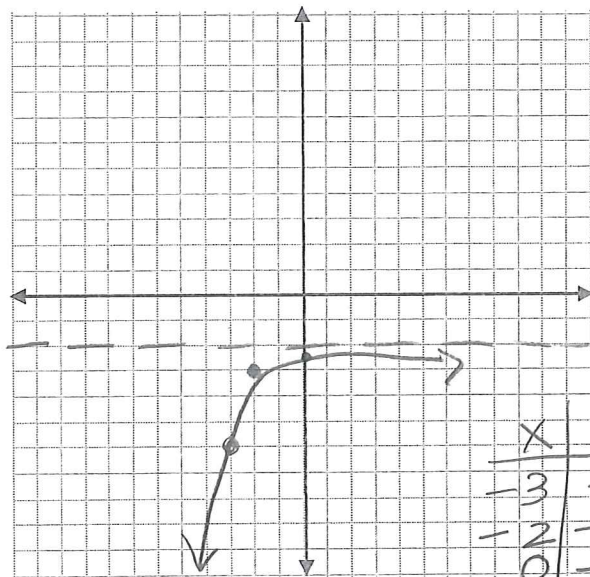
Chapter 7 Target 2 Practice

Name: Kay

Graph the function on the coordinate plane and fill in all the information.



x	y
0	7
1	5
2	4



x	y
-3	-6
-2	-3
0	-2.0625

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

Transformations: *Stretch by 2; Right 1; up 3*

Horizontal asymptote:  $y = 3$

y-intercept:  $(0, 7)$

Domain:  $(-\infty, \infty)$

Range:  $(3, \infty)$

2. Graph:  $f(x) = -\left(\frac{1}{4}\right)^{x+2} - 2$

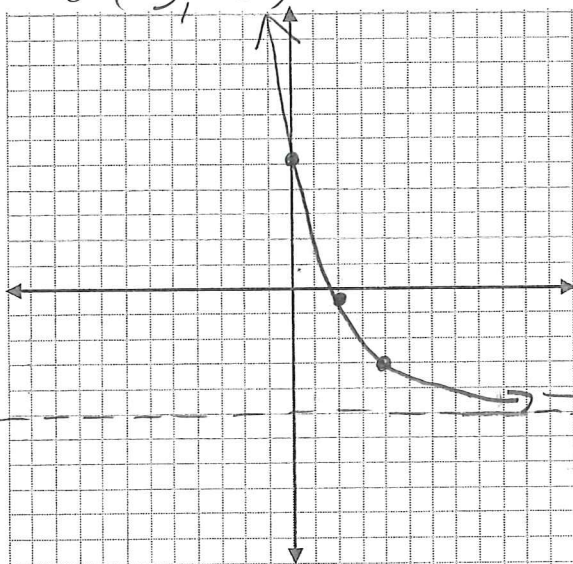
Transformations: *flips; left 2; Down 2*

Horizontal asymptote:  $y = -2$

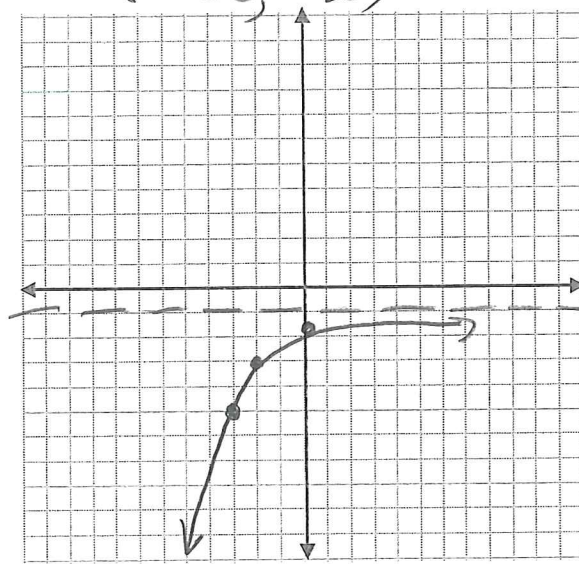
y-intercept:  $(0, -2.0625)$

Domain:  $(-\infty, \infty)$

Range:  $(-\infty, -2)$



x	y
0	5.125
2	-5
4	-3



x	y
-3	-5
-2	-3
0	-1.5

3. Graph:  $f(x) = 3\left(\frac{2}{3}\right)^{x-3} - 5$

Transformations: *Stretch by 3; Right 3; Down 5*

Horizontal asymptote:  $y = -5$

y-intercept:  $(0, 5.125)$

Domain:  $(-\infty, \infty)$

Range:  $(-5, \infty)$

4. Graph:  $f(x) = -2\left(\frac{1}{2}\right)^{x+2} - 1$

Transformations: *flips; Stretch by 2; Left 2; Down 1*

Horizontal asymptote:  $y = -1$

y-intercept:  $(0, -1.5)$

Domain:  $(-\infty, \infty)$

Range:  $(-\infty, -1)$