

Sketch the graphs of each function. Then, state the y-intercept, domain, range, and asymptotes.

$f(x) = e^x$

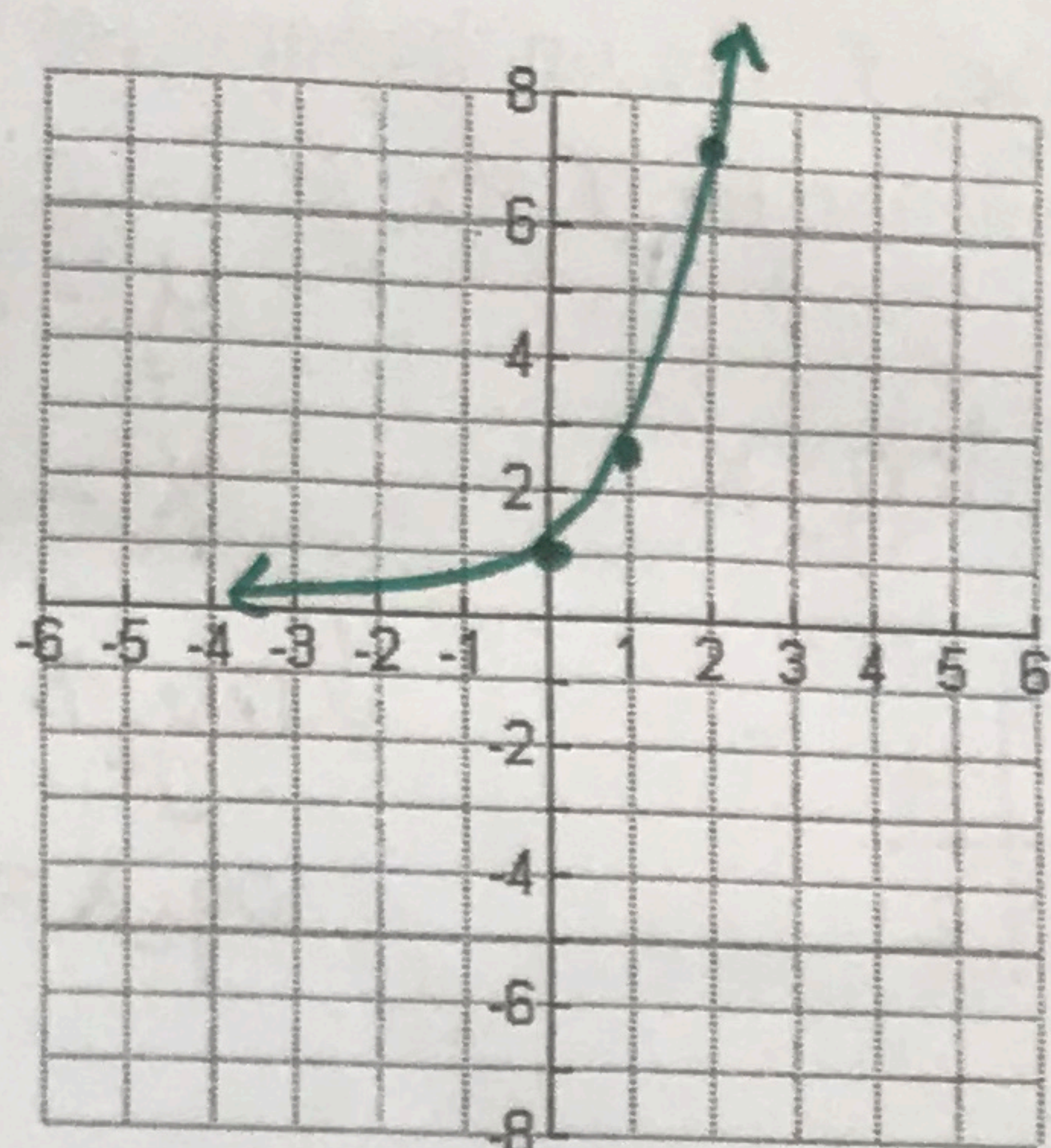
y-intercept:  $(0, 1)$

asymptote:  $y = 0$

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

range:  $(0, \infty)$

| x  | y                  |
|----|--------------------|
| -2 |                    |
| -1 |                    |
| 0  | 1                  |
| 1  | $e \approx 2.718$  |
| 2  | $e^2 \approx 7.38$ |



33.  $f(x) = 3^x$

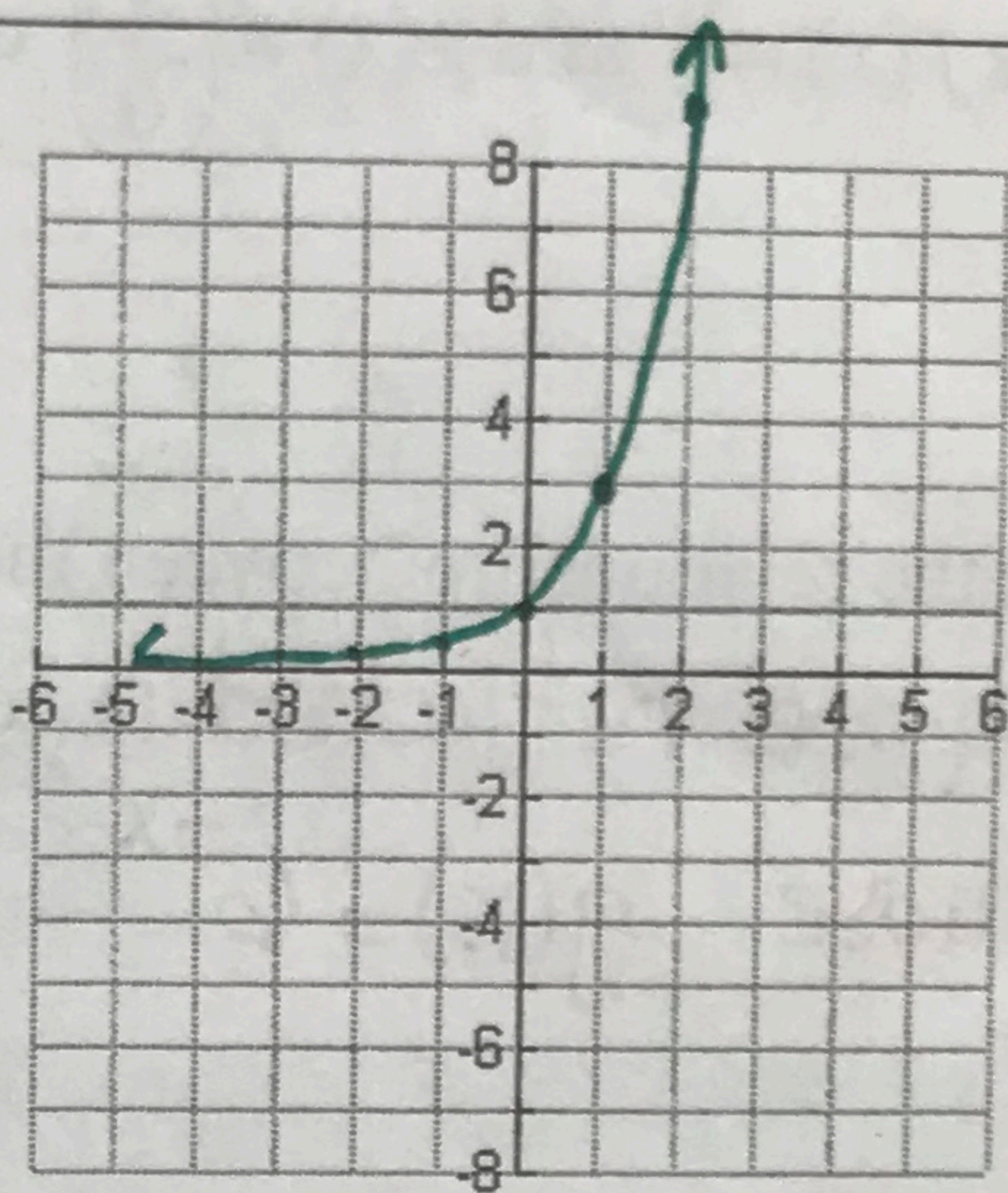
y-intercept:  $(0, 1)$

asymptote:  $y = 0$

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

range:  $(0, \infty)$

| x  | y     |
|----|-------|
| -2 | $1/9$ |
| -1 | $1/3$ |
| 0  | 1     |
| 1  | 3     |
| 2  | 9     |

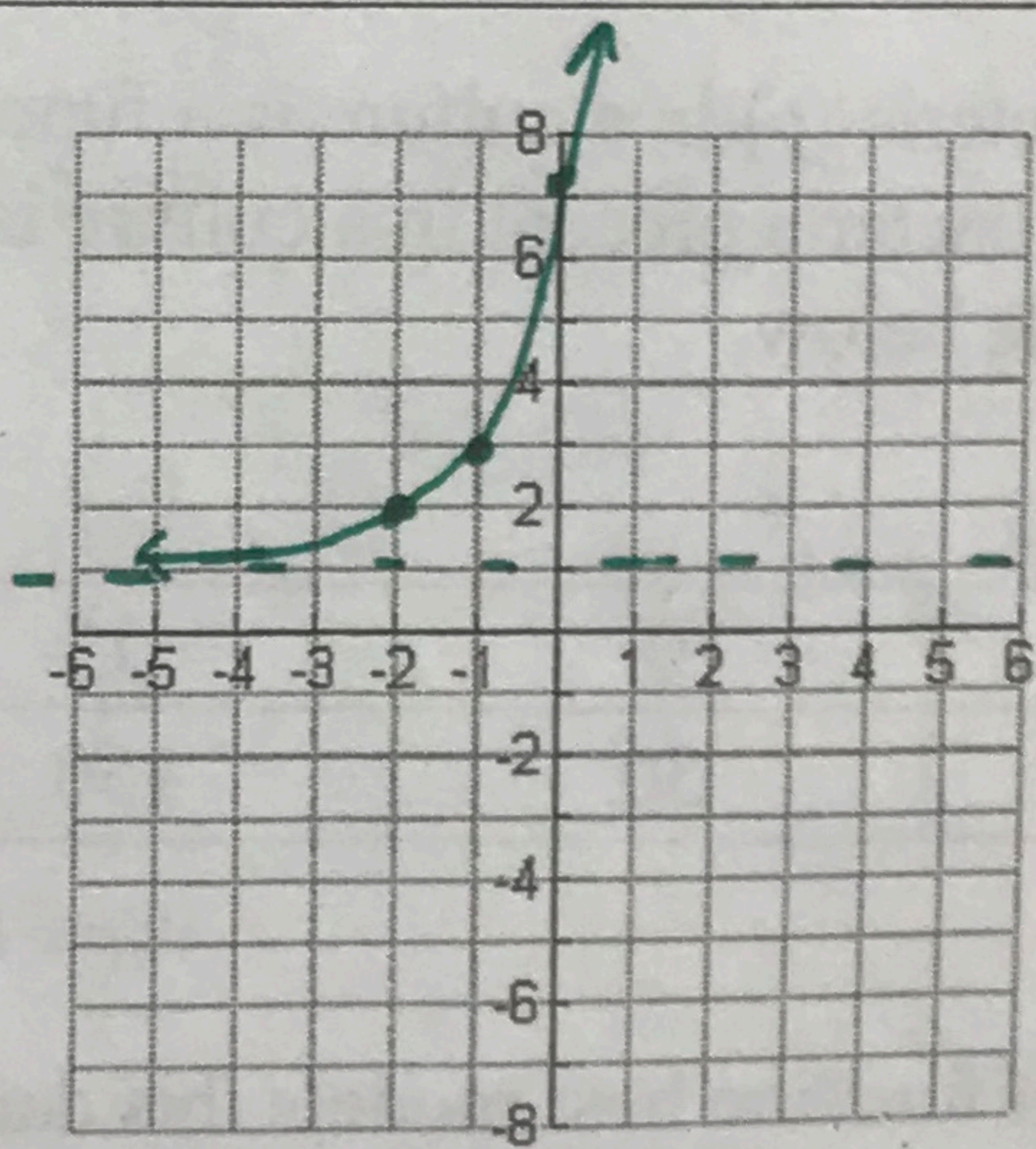


34.  $f(x) = e^{x+2} + 1$  move left 2 up 1

asymptote:  $y = 1$

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

range:  $(1, \infty)$



35.  $f(x) = e^{x-1} - 6$  move right 1 & down 6

asymptote:  $y = -6$

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

range:  $(-6, \infty)$

