Limits at infinity. Asymptotes.

2.3.1

   a)   0   b) $-\dfrac{1}{4}$

   c) $\sqrt{2}$ d)   0

2.3.2
(a) 1
(b) -2

2.3.3

Horizontal: at $y = 5$;   vertical at: $x = -2$ and $x = 1$.