

以下の式で表される関数のグラフを描け。座標軸との交点があればその座標も書くこと。グラフを書くのに必要な途中計算があれば、それも略さず書くこと。

問題 1 [一次関数, 二次関数]

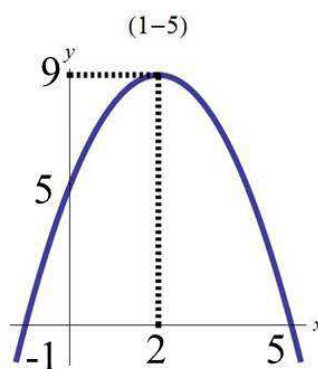
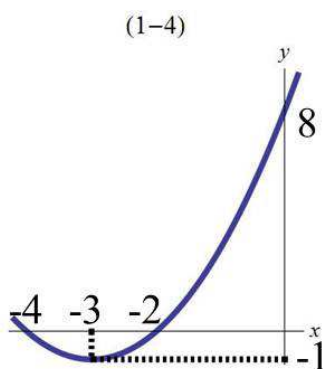
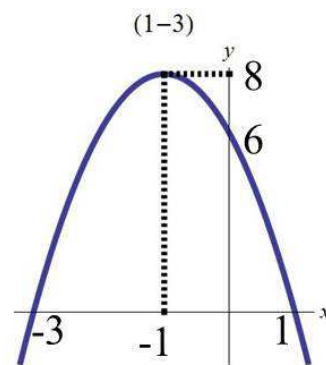
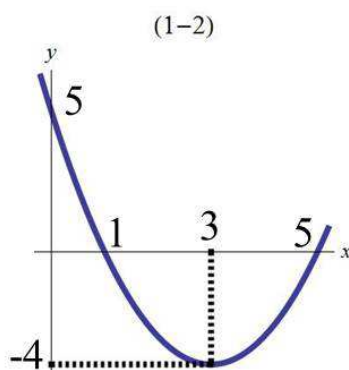
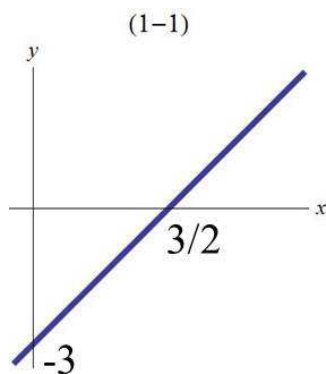
(1-1) $y = 2x - 3$

(1-2) $y = (x - 3)^2 - 4$

(1-3) $y = -2(x + 1)^2 + 8$

(1-4) $y = x^2 + 6x + 8 = (x + 3)^2 - 1$

(1-5) $y = -x^2 + 4x + 5 = -(x - 2)^2 + 9$



問題 2 [分数関数]

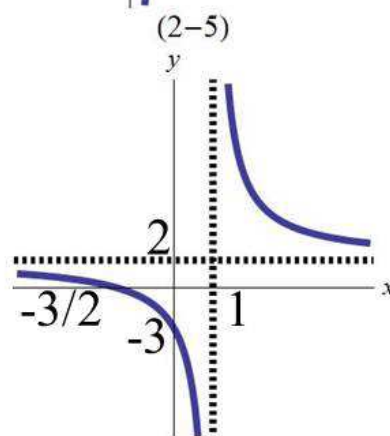
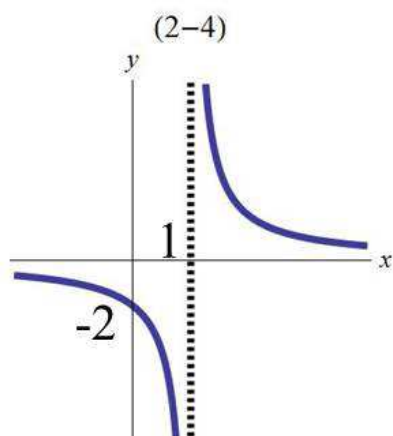
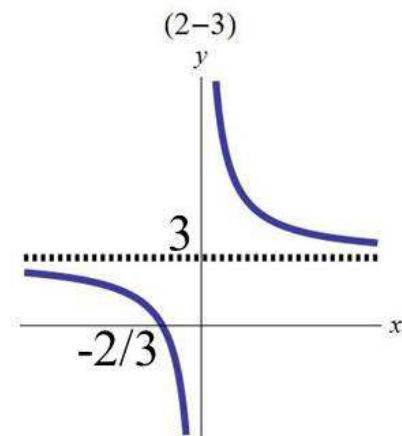
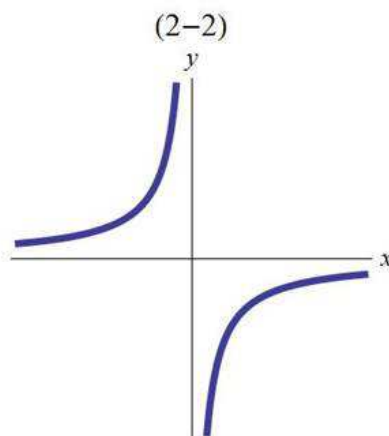
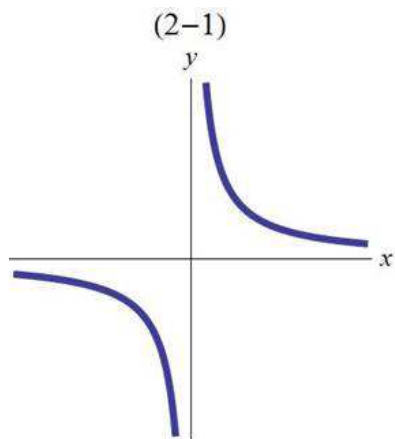
(2-1) $y = \frac{2}{x}$

(2-2) $y = -\frac{3}{x}$

(2-3) $y = \frac{2}{x} + 3$

$$(2-4) y = \frac{2}{x-1}$$

$$(2-5) y = \frac{2x+3}{x-1} = 2 + \frac{5}{x-1}$$



問題 3 [無理関数]

$$(3-1) y = \sqrt{x}$$

$$(3-2) y = -\sqrt{2x}$$

$$(3-3) y = \sqrt{x-2} + 3$$

$$(3-4) y = -\sqrt{x+1} + 1$$

