Practice Exercise For Lecture 14

Q1. Find the vertex and focus of the given parabola $(x-2)^2 = 5(y+2)$

$\left(\text{Ans. vertex:}(2,\text{-}2),\ \text{focus}:\left(2,-\frac{3}{4}\right)\right)$

Q2. Find the vertex and focus of the given parabola $(y-2)^2 = -8(x-3)$.

$\left(\text{Ans. vertex:}(3,2),\ \text{focus}:(1,2)\right)$

Q3. Represent the following equation in standard equation of parabola and then find the vertex and focus.

$$x^2 + 8x - 4y + 8 = 0\,.$$

$\left(\text{Ans. vertex:}(-4,-6),\ \text{focus}:(-4,-5)\right)$