71. For each of the following families: verify it is an exponential family, describe the curve on which the parameter vector $\boldsymbol{\theta}$ lies, and use R to create a graph of the curved parameter space

    (a) normal(θ, θ), where the second θ represents the variance of the normal distribution; that is $\theta = \sigma^2$.

    (b) normal$(\theta, a\theta^2)$, where a is a known real constant. Here $\sigma^2 = a\theta^2$.

    (c) gamma(α, α^{-1})