Problems from Assignment 12

1. Suppose the X is a continuous random variable with density $f_X(x)$.
   (a) Show if $a > 0$ then $f_{aX}(x) = \frac{1}{a} f_X\left(\frac{x}{a}\right)$.
   (b) Find $f_{aX}(x)$ when $a < 0$.
   (c) Give a general formula for $a \neq 0$.
   (d) What happens when $a = 0$?