(a) $x^2 + y^2 = r^2$, so the equation becomes $z = \frac{1}{7}r^2$.

(b) Substituting $x^2 + y^2 = r^2$ and $y = r\sin\theta$, the equation $4x^2 + 4y^2 = 7y$ becomes $r^2 = \frac{7}{4}r\sin\theta$ or $r = \frac{7}{4}\sin\theta$.