3.6 $\quad H(z) = \sum\limits_{n=-\infty}^{\infty} h(n)z^{-n} = \sum\limits_{n=0}^{\infty} (0.8)^n z^{-n} - \sum\limits_{n=0}^{\infty} (0.6)^n z^{-n} =$

$$= \frac{1}{1 - 0.8\ z^{-1}} - \frac{1}{1 - 0.6\ z^{-1}} = \frac{z}{z - 0.8} - \frac{z}{z - 0.6} =$$

$$= \frac{0.2\ z}{(z - 0.8)(z - 0.6)}$$

The geometric series converges for $|0.8\ z^{-1}| < 1$ and $|0.6\ z^{-1}| < 1$, respectively. We get

$$H(z) = \frac{0.2\ z}{(z - 0.8)(z - 0.6)} \quad , \ |z| > 0.8$$