73. Solution: E

$$F(y)=\Pr[Y\le y]=\Pr\left[10X^{0.8}\le y\right]=\Pr\left[X\le\left(Y/10\right)^{10/8}\right]=1-e^{-\left(Y/10\right)^{10/8}}$$

Therefore, $f(y)=F'(y)=\dfrac{1}{8}\left(\dfrac{Y}{10}\right)^{1/4}e^{-(Y/10)^{5/4}}$