

P. 27

17.  $T$  has 2 fixed points  $0 + \frac{2}{3}$

$T^2$  has 4 fixed points  $0, \frac{2}{5}, \frac{3}{3}, \frac{4}{5}$

18.

$$T^3(x) = \begin{cases} 8x & 0 \leq x \leq \frac{1}{8} \\ 2-8x & \frac{1}{8} \leq x \leq \frac{1}{4} \\ 8x-2 & \frac{1}{4} \leq x \leq \frac{3}{8} \\ 4-8x & \frac{3}{8} \leq x \leq \frac{1}{2} \\ 8x-4 & \frac{1}{2} \leq x \leq \frac{5}{8} \\ 6-8x & \frac{5}{8} \leq x \leq \frac{3}{4} \\ 8x-6 & \frac{3}{4} \leq x \leq \frac{7}{8} \\ 8-8x & \frac{7}{8} \leq x \leq 1 \end{cases}$$

