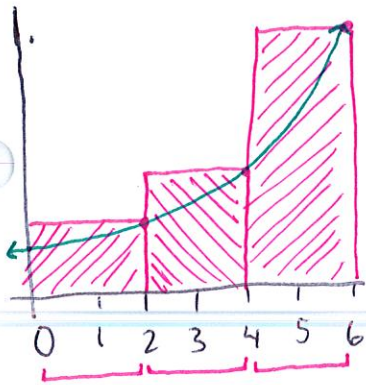
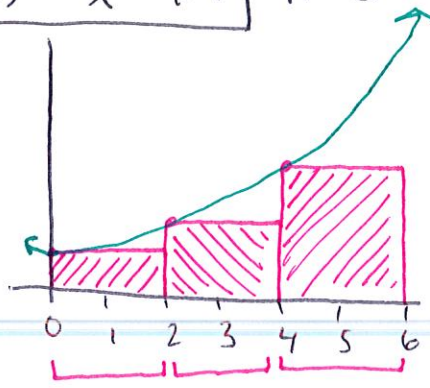


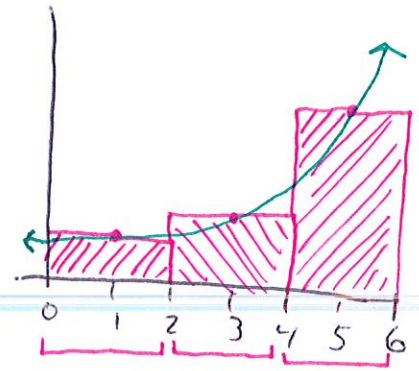
$$f(x) = x^2 + 1 \quad n=3$$



rRAM



lRAM



mRAM

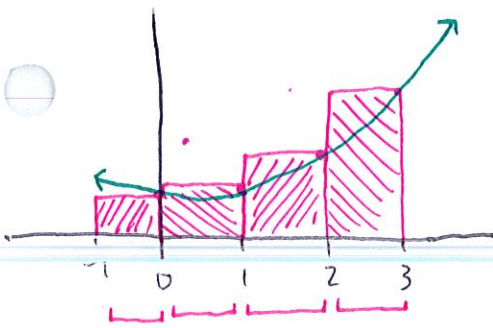
$$\begin{aligned} \textcircled{1} \quad & 2f(2) + 2f(4) + 2f(6) \\ & 2 \cdot 5 + 2 \cdot 17 + 2 \cdot 37 \\ & \textcircled{118} \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{1} \quad & 2f(2) + 2f(4) + 2f(6) \\ & 2 \cdot 5 + 2 \cdot 17 + 2 \cdot 37 \\ & \textcircled{118} \end{aligned}} \right\} \text{rRAM}$$

$$\begin{aligned} \textcircled{2} \quad & 2f(0) + 2f(2) + 2f(4) \\ & 2 \cdot 1 + 2 \cdot 5 + 2 \cdot 17 \\ & \textcircled{46} \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{2} \quad & 2f(0) + 2f(2) + 2f(4) \\ & 2 \cdot 1 + 2 \cdot 5 + 2 \cdot 17 \\ & \textcircled{46} \end{aligned}} \right\} \text{lRAM}$$

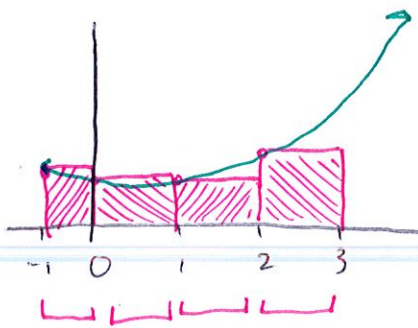
$$\begin{aligned} \textcircled{3} \quad & 2f(1) + 2f(3) + 2f(5) \\ & 2 \cdot 2 + 2 \cdot 10 + 2 \cdot 26 \\ & \textcircled{76} \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{3} \quad & 2f(1) + 2f(3) + 2f(5) \\ & 2 \cdot 2 + 2 \cdot 10 + 2 \cdot 26 \\ & \textcircled{76} \end{aligned}} \right\} \text{mRAM}$$

$$\begin{aligned} \textcircled{4} \quad & \frac{1}{2} \cdot 2 (f(0) + 2f(2) + 2f(4) + f(6)) \\ & 1 + 2 \cdot 5 + 2 \cdot 17 + 37 \\ & \textcircled{82} \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{4} \quad & \frac{1}{2} \cdot 2 (f(0) + 2f(2) + 2f(4) + f(6)) \\ & 1 + 2 \cdot 5 + 2 \cdot 17 + 37 \\ & \textcircled{82} \end{aligned}} \right\} \text{Trapezoid}$$

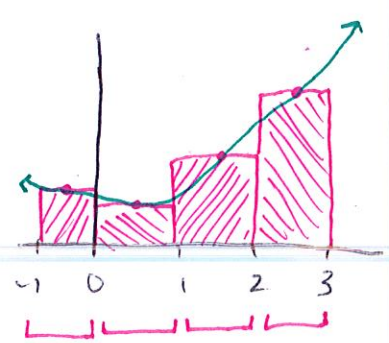
$$f(x) = 2x^4 - 3x + 5 \quad n=4$$



rRAM



lRAM



mRAM

$$\begin{aligned} \textcircled{5} \quad & 1 \cdot f(0) + 1 \cdot f(1) + 1 \cdot f(2) + 1 \cdot f(3) \\ & 5 + 4 + 31 + 158 \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{5} \quad & 1 \cdot f(0) + 1 \cdot f(1) + 1 \cdot f(2) + 1 \cdot f(3) \\ & 5 + 4 + 31 + 158 \end{aligned}} \right\} \text{rRAM}$$

$$\textcircled{198}$$

$$\begin{aligned} \textcircled{6} \quad & 1 \cdot f(-1) + 1 \cdot f(0) + 1 \cdot f(1) + 1 \cdot f(2) \\ & 10 + 5 + 4 + 31 \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{6} \quad & 1 \cdot f(-1) + 1 \cdot f(0) + 1 \cdot f(1) + 1 \cdot f(2) \\ & 10 + 5 + 4 + 31 \end{aligned}} \right\} \text{lRAM}$$

$\textcircled{50}$

$$\begin{aligned} \textcircled{7} \quad & 1 \cdot f(-1/2) + 1 \cdot f(1/2) + 1 \cdot f(3/2) + 1 \cdot f(5/2) \\ & 6.625 + 3.625 + 10.625 + 75.625 \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{7} \quad & 1 \cdot f(-1/2) + 1 \cdot f(1/2) + 1 \cdot f(3/2) + 1 \cdot f(5/2) \\ & 6.625 + 3.625 + 10.625 + 75.625 \end{aligned}} \right\} \text{mRAM}$$

$\textcircled{96.5}$

$$\begin{aligned} \textcircled{8} \quad & \frac{1}{2} \cdot (f(-1) + 2f(0) + 2f(1) + 2f(2) + f(3)) \\ & \frac{1}{2} (10 + 2 \cdot 5 + 2 \cdot 4 + 2 \cdot 31 + 158) \end{aligned} \quad \left. \vphantom{\begin{aligned} \textcircled{8} \quad & \frac{1}{2} \cdot (f(-1) + 2f(0) + 2f(1) + 2f(2) + f(3)) \\ & \frac{1}{2} (10 + 2 \cdot 5 + 2 \cdot 4 + 2 \cdot 31 + 158) \end{aligned}} \right\} \text{trapezoid}$$

$\textcircled{124}$