

## INTERPOLATION

$$S_0(0) = 0 \checkmark$$

$$S_0(1/2) = 1 \checkmark$$

$$S_1(1/2) = 1 \checkmark$$

$$S_1(1) = 0 \checkmark$$

$$S_0(0) = -8 \cdot 0 + 4 \cdot 0 \\ = 0 \checkmark$$

$$S_0(1/2) = -8 \cdot \frac{1}{2^3} + 4 \cdot \frac{1}{2} \\ = -8 \cdot \frac{1}{8} + 2 \\ = -1 + 2 \\ = 1 \checkmark$$

$$S_1(1/2) = -8(1 - \frac{1}{2})^3 + 4(1 - \frac{1}{2}) \\ = -8(\frac{1}{2})^3 + 4 \cdot \frac{1}{2} \\ = -8 \cdot \frac{1}{8} + 2 \\ = -1 + 2 = 1 \checkmark$$

$$S_1(1) = -8(1-1)^3 + 4(1-1) \\ = 0 \checkmark$$

$$S_0(x) = -8x^3 + 4x$$

$$S_1(x) = -8(1-x)^3 + 4(1-x)$$

LCM H  
11 ON THURS