

- A. Explain, in mathematical terms, the logic in the computation of s_2 .**

$$s_2 = \begin{cases} s_1 - (8n + 24) & \text{if } n \text{ is odd} \\ s_1 - (8n + 16) & \text{if } n \text{ is even} \end{cases}$$

- B. Explain, in mathematical terms, the logic in the computation of p .**

$$p = \lceil \frac{s_2}{16} \rceil \times 16$$

- C. Find values of n and s_1 that lead to minimum and maximum values of e_1 .**

When n is odd and s_1 is multiple of 8 but not multiple of 16 then e_1 will have maximum size 24 bytes. When n is even and s_1 is multiple of 8 but not multiple of 16 then e_1 will have minimum size 8 bytes.

- D. What alignment properties does this code guarantee for the value of s_2 and p ?**

s_2 is 8-byte aligned and p is 16-byte aligned.