

2.76  
4

$$-2x^3 - 8ax^2 - 4a^2x + 5 = 4a^2x + 5$$

! )'1000 n)

$$2x(x^2 + 4ax + 4a^2) = 0$$

$$(x+2a)^2 = 0$$
$$x = -2a$$

$$x = 0$$

$$13.5 = \left| \int_{-2a}^0 (-2x^3 - 8ax^2 - 4a^2x + 5 - 4a^2x - 5) dx \right| =$$

$$13.5 = \left| -\frac{x^4}{2} - \frac{8ax^3}{3} - 4a^2x^2 \right|_{-2a}^0 = - \left( -\frac{16a^4}{2} + \frac{64a^4}{3} - 16a^4 \right)$$

$$13.5 = +8a^4 - 21\frac{1}{3}a^4 + 16a^4 = 2\frac{2}{3}a^4 \quad / \cdot 6$$

$$81 = 16a^4 \rightarrow a = \frac{3}{2} \rightarrow \boxed{a = \frac{3}{2}}$$