(5.) $I_5 = \int \frac{(6x^2 + 20x^4)}{(2x^3 + 4x^5)}\,dx$ Check if it fits Log Rule.

Check Log Rule $\int \frac{u'(x)}{u(x)}\,dx = \ln|u(x)| + C$

Comparing: $u(x) = 2x^3 + 4x^5$

$u'(x) = 6x^2 + 20x^4 \Rightarrow$ Perfect fit for log rule.

$$\boxed{I_5 = \ln|2x^3 + 4x^5| + C}$$

(6.) $I_6 = \int (6x^2 + 20x^4)\, e^{(2x^3 + 4x^5)}\,dx$ Check if fits exponential Rule.

$\int u'(x) \cdot e^{u(x)}\,dx = e^{u(x)} + C$

Comparing gives: $u(x) = 2x^3 + 4x^5$

$u'(x) = 6x^2 + 20x^4$

$\Rightarrow$ Perfect fit for exponential rule.

$$\boxed{I_6 = e^{(2x^3 + 4x^5)} + C}$$