

Examen Bimestral

$$\int_{-2}^2 x^2 dx = \left. \frac{x^3}{3} \right|_{-2}^2 = \frac{2^3}{3} - \frac{-2^3}{3}$$

$$\frac{8}{3} - \frac{-8}{3} = \frac{0}{3} = 0$$

$$\int_{-3}^3 \frac{2x^3}{3} + 3x \Big|_{-3}^3 = \left[(3)^3 + 3(3) \right] - \left[(-3)^3 + 3(-3) \right]$$
$$x^3 + 3x \Big|_{-3}^3 \quad [27+9] - [27+(-9)]$$
$$[36] - [-36]$$

~~36+36=72~~

$$\int_{-3}^3 \frac{x^5}{5} - \frac{(x^4 - x^2)}{4} \Big|_{-3}^3$$

$$x^5 (x^4 - x^2) \Big|_{-3}^3$$

$$\left[(3)^5 (3)^4 - (3)^2 \right]$$

$$\left[(-3)^5 (-3)^4 - (-3)^2 \right]$$

$$\left[243(81-9) \right] - \left[-243(-81+9) \right]$$

$$\left[243(72) \right] - \left[-243(-72) \right]$$

$$17496 - 17496 = 0$$

$$\textcircled{3} \int_8^{12} 6(x) dx$$

$$\int_8^{12} (x+8) dx$$

$$\frac{x^2}{2} + 8x \Big|_8^{12}$$

$$\left(\frac{12^2}{2} + 8(12) \right) - \left(\frac{(8)^2}{2} + 8(8) \right)$$

$$168 - 96$$

$$\int_8^{12} 6(x) dx = 72$$