Calculus I

§ Indefinite integral of a polynomial, part 1

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Compute the integral.
$$\int (2x^2 - x - 5) dx$$

$$\int \left(\frac{2x^2 - x - 5}{x^2}\right) dx = 2 \int \frac{x^2}{x^2} dx - \int x dx - 5 \int dx$$

$$\int \left(2x^2 - x - 5\right) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$

$$\int \left(2x^2 - x - 5\right) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$

$$\int (2x^{2} - x - 5) dx = 2 \int x^{2} dx - \int x dx - 5 \int dx$$

$$= 2? - ? - 5?$$

$$\int (2x^{2} - x - 5) dx = 2 \int x^{2} dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^{3}}{3} - ? - 5?$$

$$\int (2x^2 - x - 5) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^3}{3} - ? - 5?$$

$$\int (2x^2 - x - 5) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^3}{3} - \frac{x^2}{2} - 5?$$

$$\int (2x^2 - x - 5) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^3}{3} - \frac{x^2}{2} - 5?$$

$$\int (2x^2 - x - 5) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^3}{3} - \frac{x^2}{2} - 5x$$

$$\int (2x^2 - x - 5) dx = 2 \int x^2 dx - \int x dx - 5 \int dx$$
$$= 2 \frac{x^3}{3} - \frac{x^2}{2} - 5x + C$$