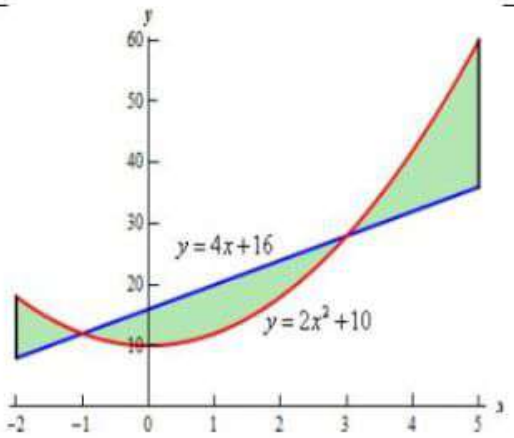
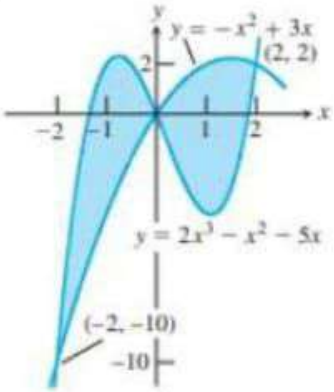
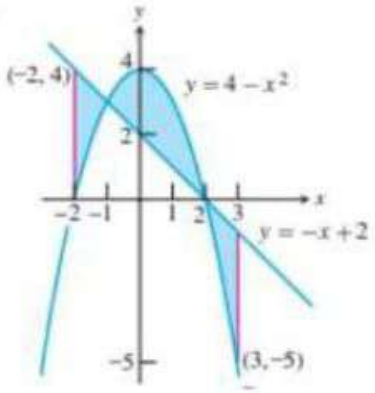
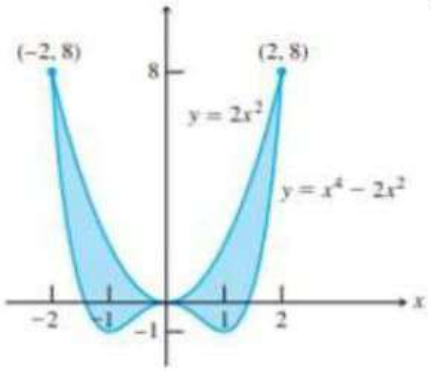
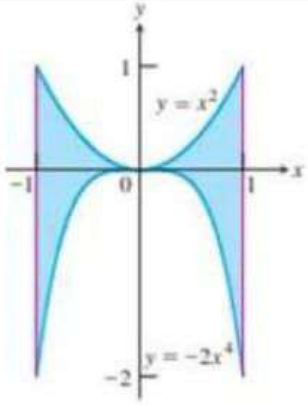
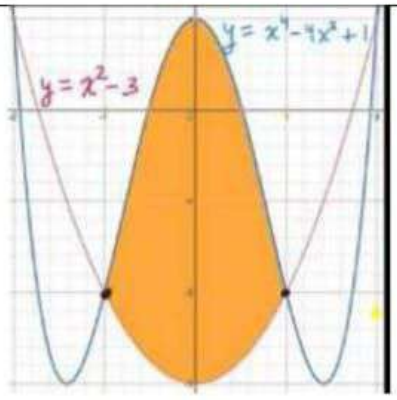
Remark : all the function are supposed defined and we ignore the constant in the indefinite integrals

N°	Questions	Answers		
		A	B	c
1	$f(x) = 2 + \frac{3}{x}$ then $\int_1^5 f(x)dx =$	$5 + \ln(15) - \ln 3$	$8 + 3\ln 5$	51.2
2	$f(x) = 1 - 2\ln x$ then $F(x) =$	$3x - 2x\ln x$	$3x + x\ln x$	$x - \frac{2}{x}$
3	$f(x) = 3(x-2)(x+5)$ then $F(x) =$	$6x + 9$	$x^3 + \frac{9}{2}x^2 - 30x + 7$	$x(x^2 + \frac{9}{2x} - 30)$
4	$\int_1^4 \left(2x - 1 + \frac{3}{x}\right) dx =$	$12 + 6\ln 2$	$2 + \ln 2$	$12 - 6\ln 2$
5	$f(x) = e^{-0.2x}$ then $F(x) =$	$-0.2e^{-0.2x}$	$-5e^{-0.2x}$	$-0.2xe^{-0.2x}$
6	$f(x) = e^{ax+b}$ then $F(x) =$	e^{ax+b}	ae^{ax+b}	$\frac{1}{a}e^{ax+b}$
7	$f(x) = \frac{1}{x^2}$ then $F(x) =$	$-\frac{1}{x}$	$-\frac{2}{x^3} + c$	$\ln(x^2)$
8	$\int x^6\, dx =$	$\frac{x^6}{7} + c$	$\frac{x^7}{7} + c$	$\frac{x^6}{5} + c$
9	$\int \frac{5 - x^2}{x^2} dx$	$\frac{-5 + x}{x}$	$-\frac{5 + x^2}{x}$	$\frac{-5 + 2x}{x}$
10	$\int (x + e^x)\, dx =$	$e^x + x^2$	$e^x + x$	$e^x + \frac{x^2}{2}$
11	$\int_0^2 e^x\, dx =$	$e^2 - 1$	$1 - 2e^2$	$2e^2 - 1$
12	$\int 18e^{-3x}\, dx =$	$6e^{-3x} + c$	$-6e^{-3x} + c$	$-54e^{-3x} + c$
13	$\int 6x^{-1}\, dx =$	$\ln(6x) + c$	$-\frac{6}{x^2} + c$	$6\ln(x) + c$
14	$\int \left(x^2 + \frac{2}{x^3} - 7\right) dx =$	$\frac{x^3}{3} + \frac{2}{x^2} - 7$	$\frac{x^3}{3} - \frac{2}{x^2} + 7$	$\frac{x^3}{3} - \frac{1}{x^2} - 7x$

15	$\int x^2 \ln 3x \, dx =$	$\frac{x^3}{9}(\ln 3x - 1)$	$\frac{x^3}{9}(3\ln 3x - 1)$	$\frac{x^3}{9}(\ln 3x + 1)$
16	 $y_1 = 4x + 16$ and $y_2 = 2x^2 + 10$ A is the green areas then	$A = \int_{-2}^{5} (y_1 - y_2)dx$	$A = \int_{-2}^{-1} (y_2 - y_1)dx + \int_{-1}^{3} (y_1 - y_2)dx + \int_{3}^{5} (y_1 - y_2)dx$	$A = \int_{-2}^{-1} (y_2 - y_1)dx + \int_{-1}^{3} (y_1 - y_2)dx - \int_{3}^{5} (y_1 - y_2)dx$
17		$A = \int_{-2}^{0} (2x^3 - 8x)dx + \int_{0}^{2} (2x^3 + 8x)dx$	$A = \int_{-2}^{0} (2x^3 - 8x)dx - \int_{0}^{2} (2x^3 - 8x)dx$	$A = \int_{-2}^{0} (2x^3 - 8x)dx + \int_{0}^{2} (2x^3 - 8x)dx$
18	 Let g(x) = $(4 - x^2) - (-x + 2) = -x^2 + x + 2$	$A = \int_{-2}^{-1} g(x)dx + \int_{-1}^{2} g(x)dx + \int_{2}^{3} g(x)dx$	$A = \int_{-2}^{-1} -g(x)dx + \int_{-1}^{2} g(x)dx + \int_{2}^{3} g(x)dx$	$A = -\int_{-2}^{-1} g(x)dx + \int_{-1}^{2} g(x)dx - \int_{2}^{3} g(x)dx$
19		$A = \int_{-2}^{0} (4x^2 - x^4)dx + \int_{0}^{2} (x^4 - 4x^2)dx$		

25)	$\int_{e}^{1} \ell n\, x\, dx$ is equal to :	1	$e-1$	-1	None
26)	$\int_{e}^{e^2} \frac{1}{x\,\ell nx} dx$ is equal to	$1-\ell n\,2$	$\ell n\,2$	$-\ell n\,2$	$\ell n\,3$
27)	$\int_{-1}^{1} \frac{e^x+e^{-x}}{e^x-e^{-x}} dx$ is equal to :	$2(e-e^{-1})$	$2(e^{-1}-e)$	0	None
28)	$\int_{2}^{-2} x e^{-x^4} dx$ is equal to :	$2e^{16}$	0	$-2e^{16}$	None
29)	$\int_{e}^{1} \frac{dx}{x(\ell nx\ -2)}$	$\ell n\,2$	2	$-\ell n\,2$	None
30)	$\int_{0}^{\ell n\,2} \frac{e^x}{e^x-4} dx$	$\ell n(1.5)$	$\ell n\,2-\ell n\,3$	$\ell n\,2-\ell n\,4$	None

		$A = \int_{-2}^{2} (x^4 - 4x^2)dx$
		$A = 2\int_{0}^{2} (4x^2 - x^4)dx$
20		$A = \int_{-1}^{1} (-2x^4 + x^2)dx$
		$A = \int_{-1}^{0} (x^2 + 2x^4)dx - \int_{0}^{1} (x^2 + 2x^4)dx$
		$A = \int_{-1}^{0} (x^2 + 2x^4)dx + \int_{0}^{1} (x^2 + 2x^4)dx$
21		$A = \frac{76}{15}\ u^2$
		$A = \frac{76}{5}\ u^2$
		$A = \frac{16}{5}\ u^2$

22)	$\int_{0}^{\frac{\pi}{3}} \tan x\ dx$ is equal to :	3	1.5	$-\ell n 2$	$\ell n 2$
23)	$\int_{0}^{\ell n 2} \frac{e^x}{4 - e^x} dx$ is equal to :	$\ell n(1.5)$	$\ell n 2 - \ell n 3$	$\ell n 2 - 1$	$1 - \ell n 2$
24)	$\int_{1}^{e} \frac{\ell n\, x}{x} dx$ is equal to :	1	$\frac{1}{2}$	-1	None