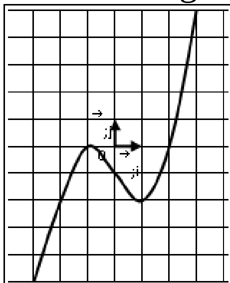
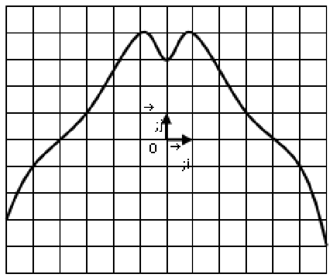
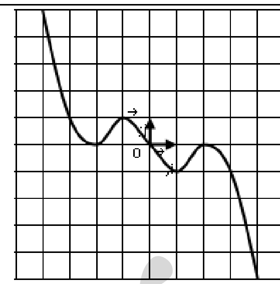
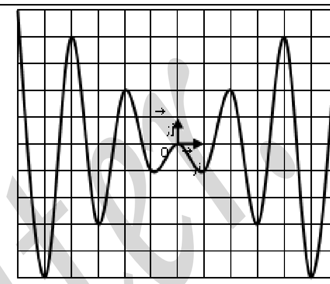
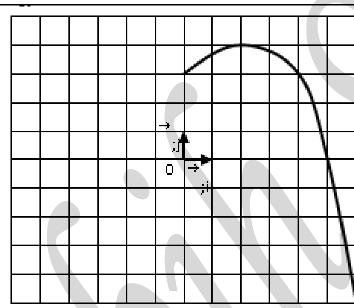
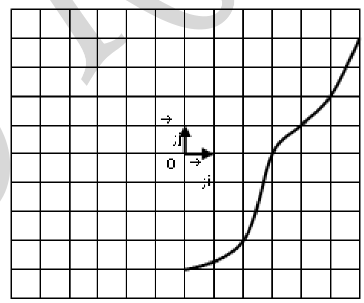
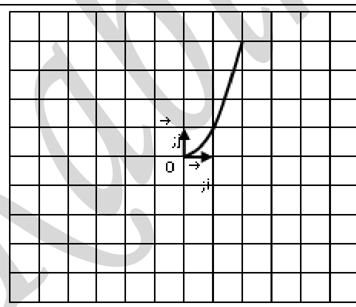
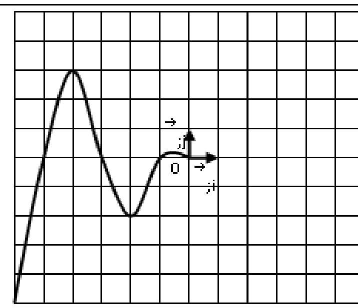
Name: . . . .   "Domain and Parity"   W.S-10

I- Consider the following curves:

					
Determine	Domain				
	Parity				

II- Complete the following curves so that:

Even		
Odd		

III- Determine the values of x for which there exists a y (domain of definition)

a. $f(x)=\dfrac{x-1}{x^2-3x+2}$

b. $g(x)=\dfrac{x+3}{x^2+4x-3}$

c. $h(x)=\dfrac{x}{x^2+1}$

d. $k(x)=\dfrac{x}{|x+2|-3}$

e. $l(x)=\dfrac{x}{|x|+2}$

f. $m(x)=\dfrac{x}{|x-1|}$

g. $n(x)=\dfrac{\sqrt{x-2}}{|x-2|+1}$

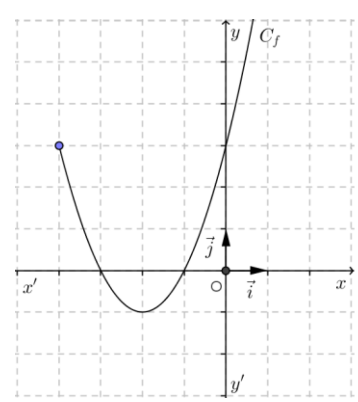
h. $p(x)=\dfrac{x}{\sqrt{3-x}}$

i. $q(x)=\sqrt{\dfrac{x-1}{2-x}}$

IV- Choose the only correct answer with ***justification***:

No.	*Questions*	*Proposed choices*		
		A	*B*	*C*
1.	The function $g : x \mapsto g(x) = \dfrac{\sqrt{x-2}}{(\lvert x\rvert-3)(x-2)}$ is defined for all $x \in$	$]-\infty,-3[\cup]2,3[$	$[2;+\infty[$	$]2;3[\cup]3;+\infty[$
2.	The graph of the function S defined over $\mathbb{R}$ by $S(x) = \dfrac{x\sin x}{2-x^2}$ is symmetric with respect to	Abscissa axis	Origin	$y-axis$
3.	$h(x) = g(\lvert x\rvert)$ then, h is	Even	Odd	Can't tell
4.	The function $f : x \mapsto f(x) = \dfrac{\sqrt{x^2-4}}{\sqrt{x+4}}$ is defined over the interval:	$]-\infty;-2]\cup[2;+\infty[$	$[-4;+2]$	$]-4;-2]\cup[2;\infty[$
	The function f defined on R^* by : $f(x) = \dfrac{x^2-2}{\lvert x\rvert}$ is :	odd	even	Neither even nor odd
	The function f defined by $f(x) = \dfrac{\sqrt{1-x}}{x+2}$ the domain of definition of f is :	$]-\infty,-2[\cup]-2,1]$	$]-2,+1[$	$[-2;1[$
	The function f defined by $f(x) = \dfrac{5x-1}{\sqrt{1-\lvert x\rvert}}$ the domain of definition of f is :	$[-1;1]$	$]-\infty,-1[\cup]1,+\infty[$	$]-1,+1[$
	The function f defined on R^* by : $f(x) = \dfrac{-x^2+4}{x}$ is :	odd	even	Neither even nor odd

V- Consider the function f defined by its representative curve C_f in the figure below:



1- *Domain and Parity:*

- ***a.*** Determine domain and range of f.
- ***b.*** Does f admit any parity? Justify.

2- Assume in this part that f is defined over $I = [-4;4]$.
Complete the graph of f so that C_f is symmetric *w.r.t*:

- ***a.*** $y-axis$.
- ***b.*** $x = axis$.