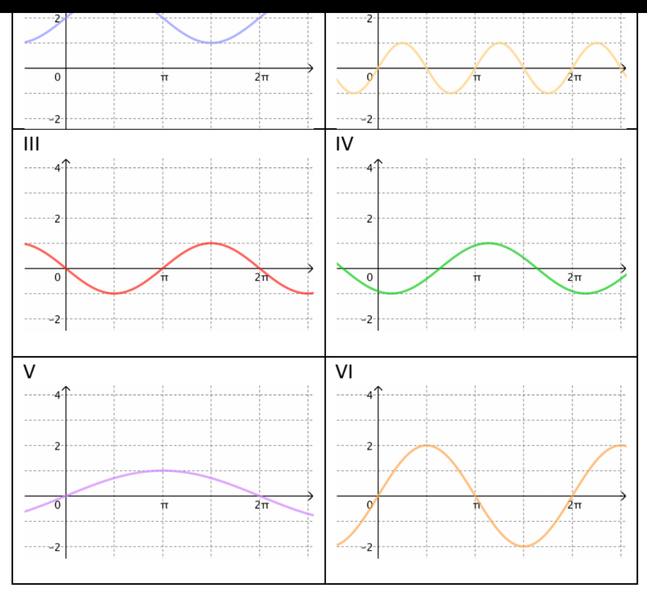
B) $f(x)+2$

C) $f(x-2)$

D) $2f(x)$

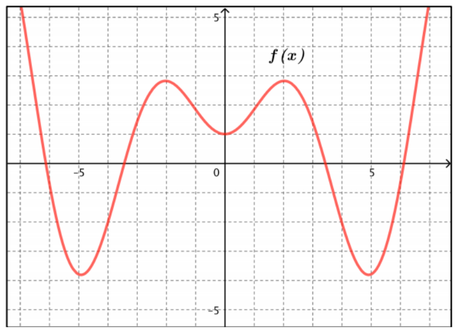
E) $f(2x)$

F) $f\left(\frac{x}{2}\right)$



G. Intercepts	$f(0) = b \rightarrow (0, b)$ is ***the*** *y*-intercept. $f(c) = 0 \rightarrow (c, 0)$ is ***a*** *zero*, ***a*** *root* or ***an*** *x*-intercept.
H. Monotonic • Increasing • Decreasing • Constant	$f(x)$ is { *increasing*, if $x_1 < x_2$ implies $f(x_1) < f(x_2)$. *decreasing*, if $x_1 < x_2$ implies $f(x_1) > f(x_2)$ *constant*, if for all x, $f(x_1) = f(x_2)$
I. Turning Point	A point $(c, f(c))$ is called a *turning point* of the graph of *f* if • it separates a portion of the graph on which *f* is *increasing* • from a portion on which *f* is *decreasing*. *A function changes direction at a turning point.*
J. Extrema:	If $c \in [a, b]$, then $f(c)$ is the { *maximum* value of $f(x)$ on $[a, b]$ if, $\forall x \in [a, b]$, $f(c) \geq f(x)$. *minimum* value of $f(x)$ on $[a, b]$ if, $\forall x \in [a, b]$, $f(c) \leq f(x)$.

13. Use the graph of $f(x)$ to answer the questions. Where necessary estimate answers to the nearest tenth.



a) Describe the symmetry.

b) $f(0) =$ _____

c) If $f(x) = 0$, then $x =$_____

d) What is the minimum value of f on the interval $0 \leq x \leq 7$? _____

e) What is the maximum value of f on the interval $0 \leq x \leq 7$?_____

f) Give the coordinates of all turning points. _____

14. indicate whether the graphs of these functions are increasing (I) or decreasing (D) for $0 < x < \frac{\pi}{2}$.

____ a) $sinx$ ____ b) $secx$ ____ c) $tanx$

____ d) $cosx$ ____ e) $cscx$ ____ f) $cotx$