

Identify the parent function. Then, describe the transformations from the parent function.

1) $f(x) = -2 x + 4$	2) $f(x) = \frac{1}{3}(x+5)^2 - 1$	3) $f(x) = \sqrt{-5x}$	4) $f(x) = 2 + 3[x + 6]$
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Describe the transformations necessary to transform the graph of $f(x)$ into that of $g(x)$.

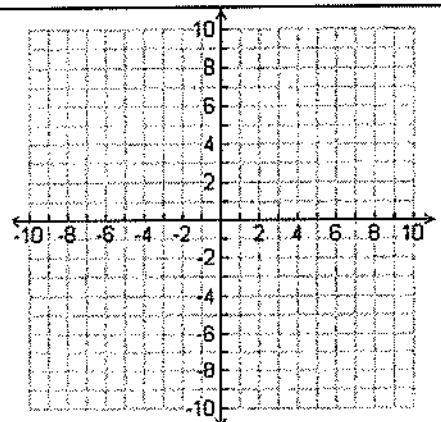
$f(x) = x $ 5) $g(x) = -\left \frac{1}{2}(x-5)\right + 2$	$f(x) = \sqrt[3]{x}$ 6) $g(x) = 2\sqrt[3]{-x} - 3$
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Transform the given function $f(x)$ as described and write the resulting function as $g(x)$.

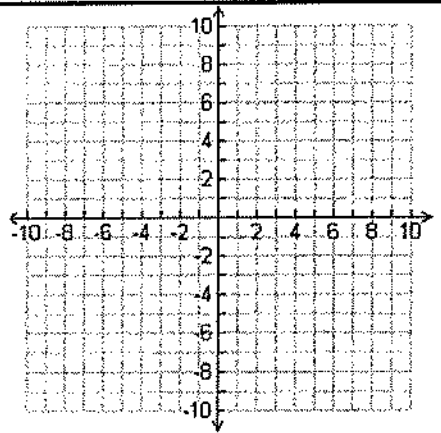
7) $f(x) = \frac{1}{x}$ translated down 3; reflected with x-axis	8) $f(x) = x^3$ translated right 4; down 2; compress vertically by factor of 5
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Sketch. State the domain and range in set notation for 9, 11, 13, 15 and interval notation for 10, 12, 14, and 16.

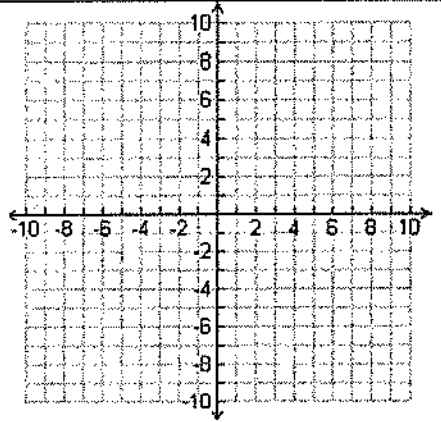
9) $f(x) = |x - 5| - 1$



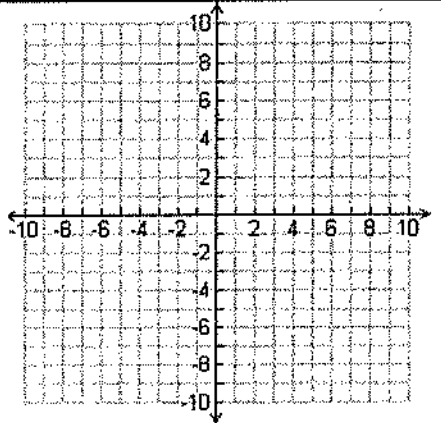
$$10) f(x) = -\sqrt{x+4}$$



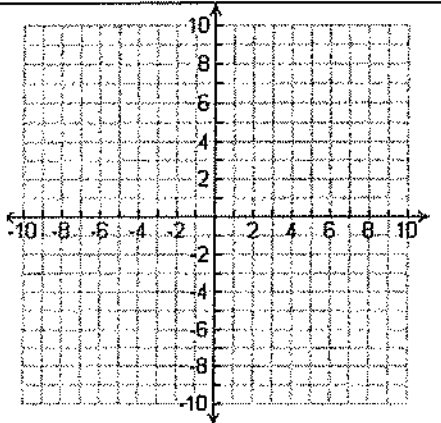
$$11) f(x) = \frac{1}{2}(x+1)^2 - 3$$



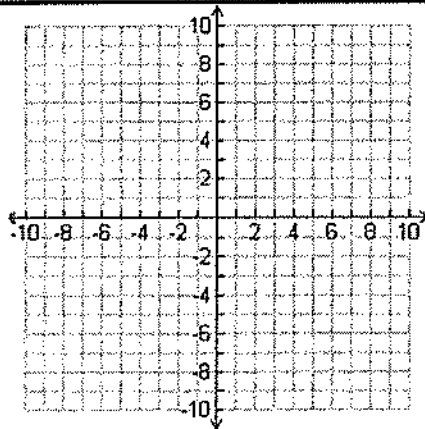
$$12) f(x) = -2|x| + 3$$



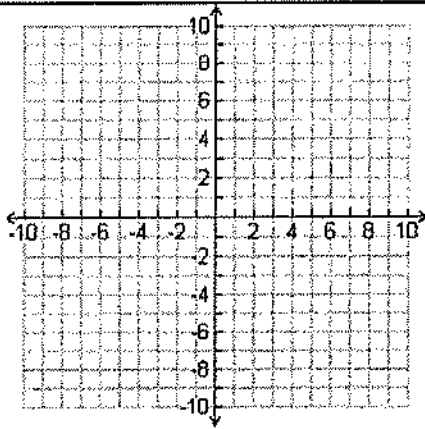
$$13) f(x) = -\sqrt[3]{x+2} - 1$$



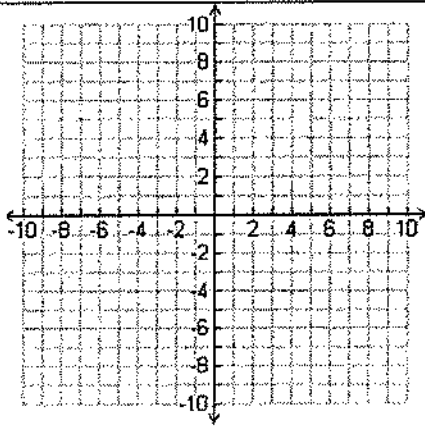
$$14) f(x) = \frac{-1}{x+2} + 1$$



$$15) f(x) = -\sqrt{-(x-3)}$$



$$16) f(x) = \frac{1}{x} + 2$$



Instructions:

- Your graphs have to be specific as possible. Label axes, intercepts, asymptotes, etc.
- Use correct notation for the domain and the range.
- It needs to be neat and clean
- Please use ruler.

Quiz Review: Practice filling in the missing information.

	FUNCTION	GRAPH	DOMAIN (SET)	DOMAIN (INT.)	RANGE (SET)	RANGE (INT.)
1.	_____ $f(x)=[x]$					
2.	_____ $f(x)=c$					
3.	_____ $f(x)=x$					
4.	_____ $f(x)= x $					
5.	_____ $f(x)=x^2$					
6.	_____ $f(x)=\sqrt{x}$					
7.	_____ $f(x)=\frac{1}{x}$					
8.	_____ $f(x)=x^3$					
9.	_____ $f(x)=\sqrt[3]{x}$					