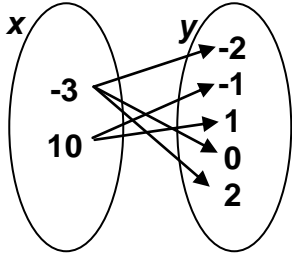
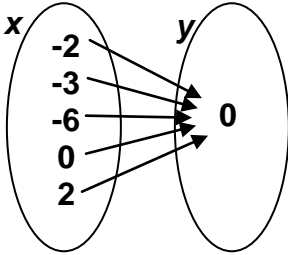


**FUNCTIONS REVISITED**

Determine whether each relation is a function (circle yes or no). Tell why or why not.

<p>1.</p> <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <thead> <tr><th>x</th><th>y</th></tr> </thead> <tbody> <tr><td>-3</td><td>3</td></tr> <tr><td>-2</td><td>3</td></tr> <tr><td>0</td><td>4</td></tr> <tr><td>1</td><td>4</td></tr> <tr><td>4</td><td>4</td></tr> </tbody> </table> <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>	x	y	-3	3	-2	3	0	4	1	4	4	4	<p>2.</p> <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <thead> <tr><th>x</th><th>y</th></tr> </thead> <tbody> <tr><td>-4</td><td>3</td></tr> <tr><td>-4</td><td>2</td></tr> <tr><td>-4</td><td>1</td></tr> <tr><td>4</td><td>0</td></tr> <tr><td>4</td><td>-2</td></tr> </tbody> </table> <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>	x	y	-4	3	-4	2	-4	1	4	0	4	-2
x	y																								
-3	3																								
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4	-2																								
<p>3.</p>  <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>	<p>4.</p>  <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>																								
<p>5. <math>\{(6, 3), (5, 2), (2, -3), (12, -12)\}</math></p> <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>	<p>6. <math>\{(4, 5), (3, -2), (-2, 5), (4, 7)\}</math></p> <p style="margin-left: 20px;">YES or NO</p> <p style="margin-left: 20px;">Why?</p>																								

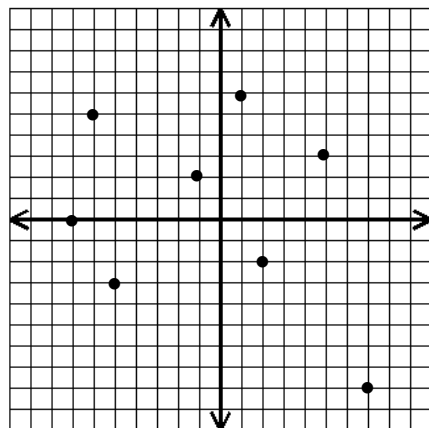
If  $f(x) = 4x + 2$  and  $g(x) = x^2 - 2x$ , find each value.

<p>7. <math>f(-4) =</math></p>	<p>8. <math>g(4) =</math></p>
<p>9. <math>f(6) =</math></p>	<p>10. <math>g(-3) =</math></p>
<p>11. <math>f(1) + g(2) =</math></p>	<p>12. <math>2[g(-5)] + 4[f(4)] =</math></p>

Given that  $f(x) = 3x - x^2$ , and the domain is  $\{-3, -2, 4, 6\}$ , find the range.

<p>13. R = _____</p>
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Use the graph below to answer the questions that follow.



14. List the ordered pairs of the relation.	
15. What is the domain of the relation?	
16. What is the range of the relation?	
17. Does the relation represent y as a function of x? Why or why not?	
18. $f(-1) =$	19. $f(7) =$
20. $f(-7) =$ _____	21. $f(x) = 2; x =$ _____
22. $f(x) = 3; x =$ _____	23. If $f(x) = 6$ , what is the value of $x + 2$ ? _____

Find the domain and range of each function.

24) D = _____ R = _____		25) D = _____ R = _____	
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**REVIEW.**

26. An architect is designing an office building with $n$ floors that will have an FM radio antenna 15.85 m tall on its roof. Each floor of the building will be 3.9 m high. Which function can be used to find the total height of the building in meters, including the FM radio antenna?	
A. $h(n) = 15.85n + 3.9$	C. $h(n) = 3.9n - 15.85$
B. $h(n) = 3.9n + 15.85$	D. $h(n) = 19.75n$