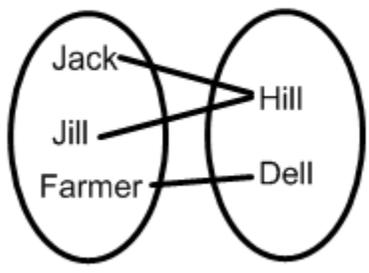
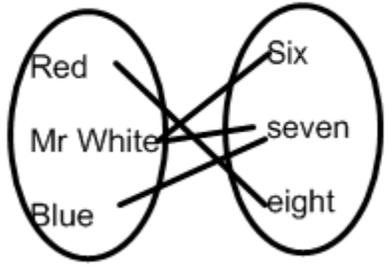


Determine whether each relation is a function. If the relation is not a function, state the reason why.

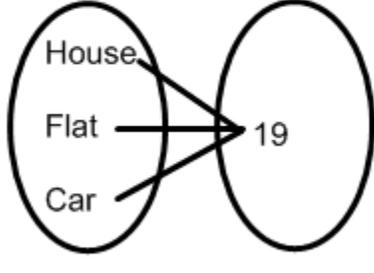
1.



2.



3.

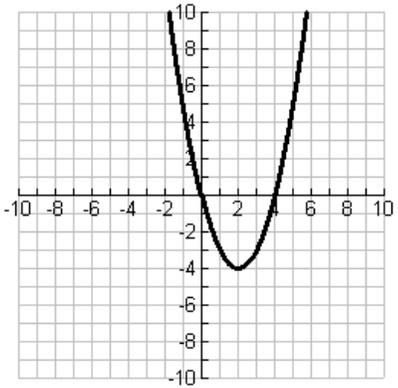


4. $(3, 4)$ $(-2, 4)$ $(6, 3)$ $(1, 4)$

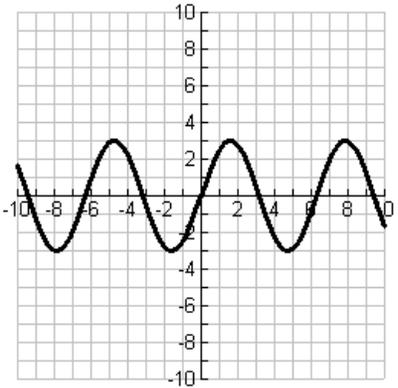
5. $(-2, 4)$ $(2, 2)$ $(4, 6)$ $(3, -2)$
 $(-4, 4)$ $(-2, 4)$

6. $(2, -4)$ $(4, 4)$ $(6, -1)$ $(5, 0)$
 $(1, 6)$ $(2, 4)$ $(3, -2)$

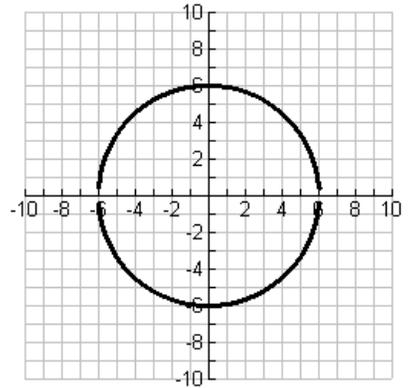
7.



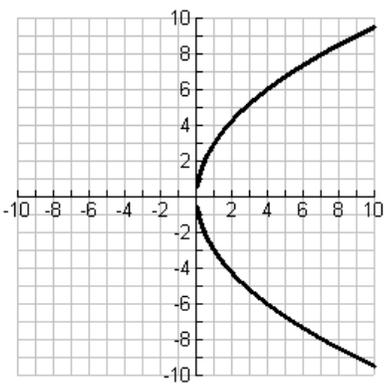
8.



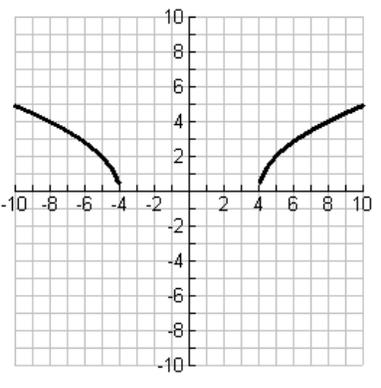
9.



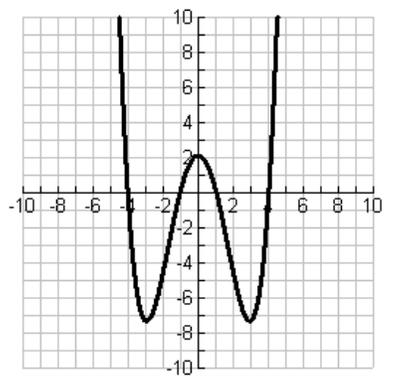
10.



11.

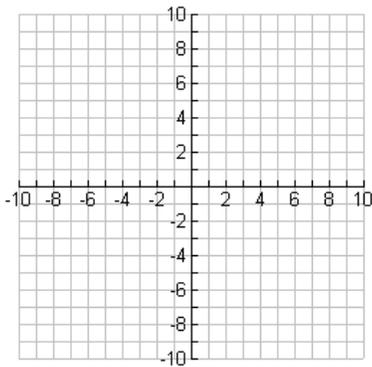


12.

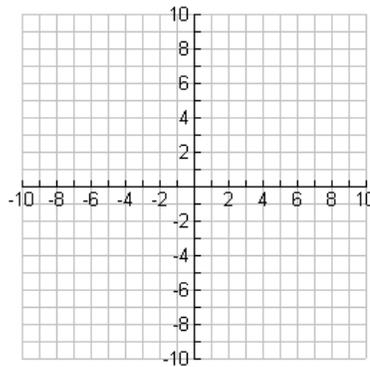


Graph each equation or sets of equations and determine if the graph is a function

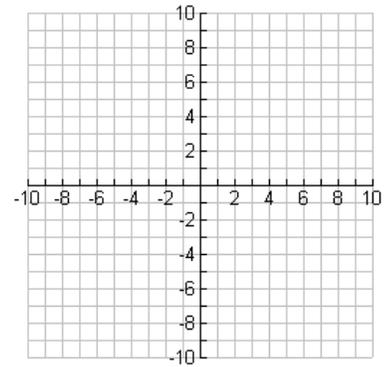
13. $y = x^3 + x^2 - 5x$



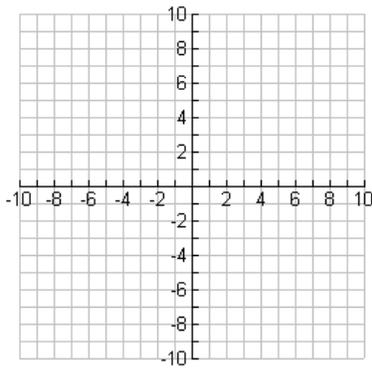
14. $y = x^2 + x - 5$



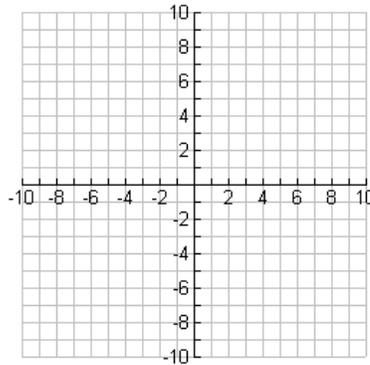
15. $y = (x-4)^2$
 $y = -(x-4)^2$



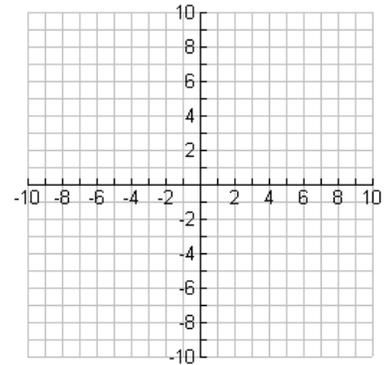
16. $y = \sqrt{64 - x^2}$
 $y = -\sqrt{64 - x^2}$



17. $y = -x^2$

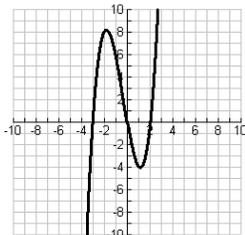


18. $\sin(x)$

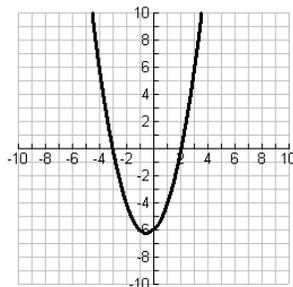


Answers

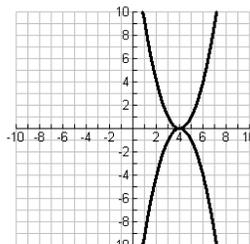
- 1) Yes
- 2) No, Mr. White is not talented enough to be both six and seven
- 3) Yes
- 4) Yes
- 5) Yes
- 6) No -2 cannot hit both -4 and -2
- 7) Yes
- 8) Yes
- 9) No -Fails vertical line test
- 10) No -Fails vertical line test
- 11) Yes
- 12) Yes
- 13) Yes



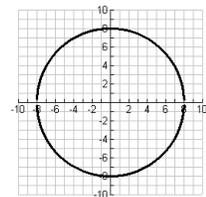
14) Yes



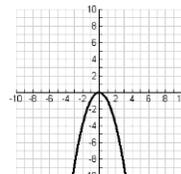
15) No Fails vertical line test



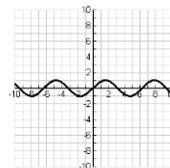
16) No Fails vertical line test



17) yes



18) yes



19)