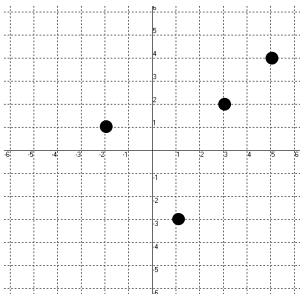
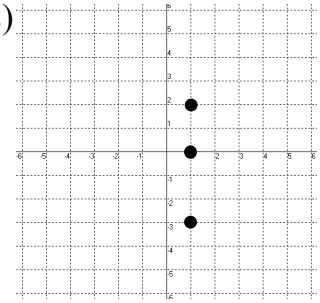
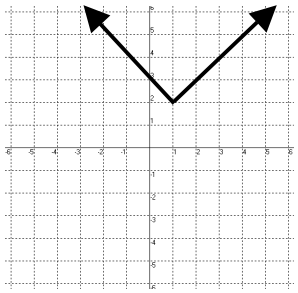
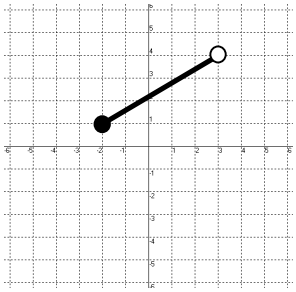
Accelerated Algebra II
Section 3.8-3.10
Domain and Range Homework

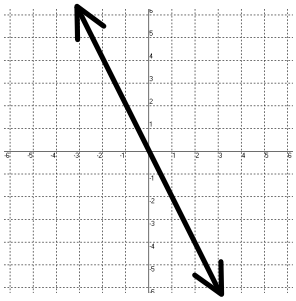
Give the domain and range of each. Tell if it is a function.

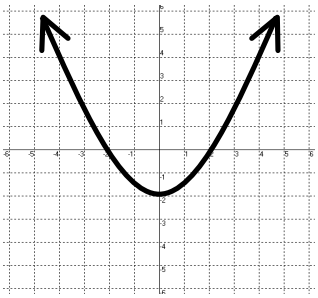
1) 

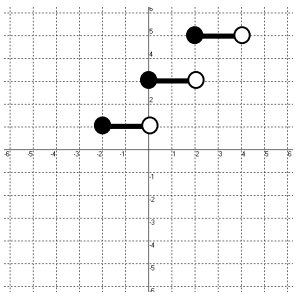
2) 

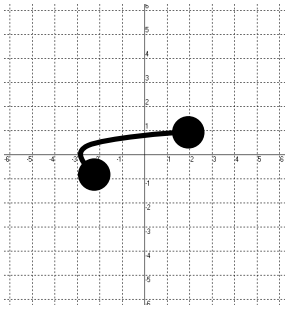
3) 

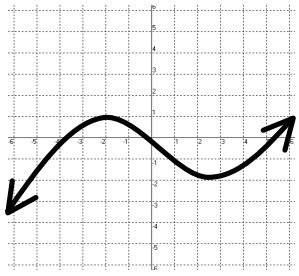
4) 

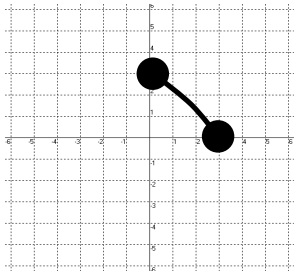
5) 

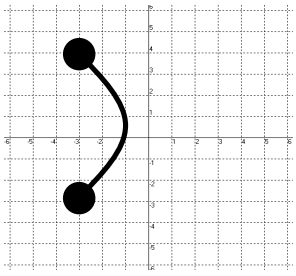
6) 

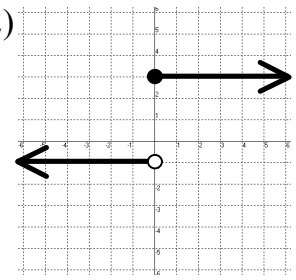
7) 

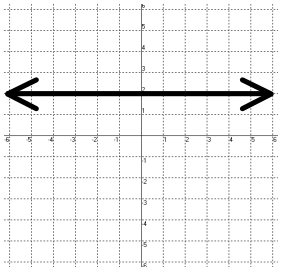
8) 

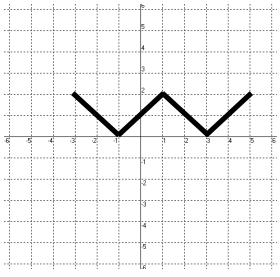
9) 

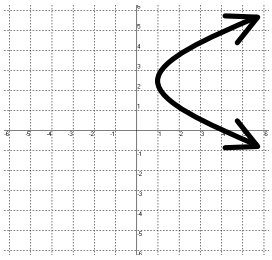
10) 

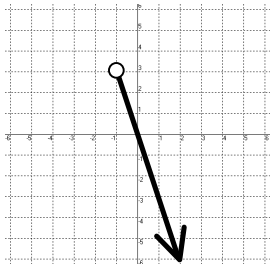
11) 

12) 

13) 

14) 

15) 

16) 

Give the domain of each function.

17) $f(x) = 2x + 1$

18) $g(x) = x^3 - 2$

19) $f(x) = \dfrac{6}{x - 4}$

20) $h(x) = \dfrac{1}{x + 10}$

21) $f(x) = \sqrt{x+1}$

22) $g(x) = \dfrac{3}{(x - 5)(x + 2)}$

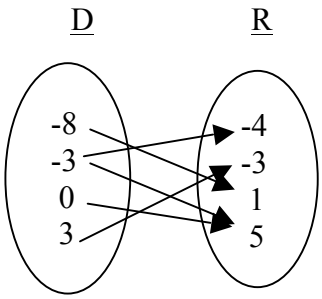
Give the domain and range of each. Tell if it is a function.

23) {(5, 2), (–3, 1), (5, –4), (0, 11)}

24) {(–6, –8), (5, 1), (9, –4), (7, 1), (15, 0)}

List the ordered pairs of each relation. Is the relation a function?

25.



Answers:

1. D={–2, 1, 3, 5}
   R={–3, 1, 2, 4}
   Yes
2. D={1}
   R={–3, 0, 2}
   No
3. D={all reals}
   R={y≥2}
   Yes
4. D={–2≤x<3}
   R={1≤y<4}
   Yes
5. D={all reals}
   R={all reals}
   yes
6. D={all reals}
   R={y≥–2}
   yes
7. D={–2≤x<4}
   R={1, 3, 5}
   yes
8. D={–3≤x≤2}
   R={–1≤y≤1}
   no
9. D={all reals}
   R={all reals}
   yes
10. D={0≤x≤3}
    R={0≤y≤3}
    yes
11. D={–3≤x≤–1}
    R={–3≤y≤4}
    no
12. D={all reals}
    R={–1, 3}
    yes
13. D={all reals}
    R={2}
    yes
14. D={–3≤x≤5}
    R={0≤y≤2}
    yes
15. D={x≥1}
    R={all reals}
    no
16. D={x>–1}
    R={y<3}
    yes
17. D={all reals}
18. D={all reals}
19. D={x ≠ 4}
20. D={x ≠ –10}
21. D={x ≥ –1}
22. D={x ≠ –2, 5}
23. D={–3, 0, 5}
    R = {–4, 1, 2, 11}
    no
24. D={–6, 5, 7, 9, 15}
    R={–8, –4, 0, 1}
    yes
25. {(–8, 1), (–3, –4), (–3, 5), (0, 5), (3, –3)}
    no