F.IF.A.1: Defining Functions 2

1   Which graph does *not* represent a function?

1)

2)

3)

4)
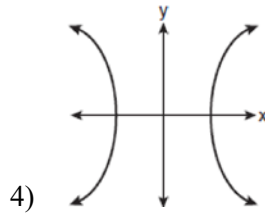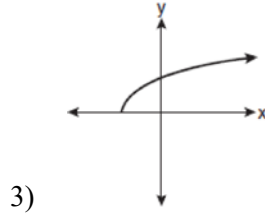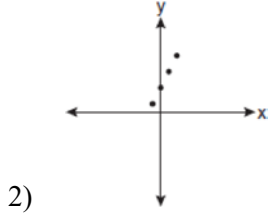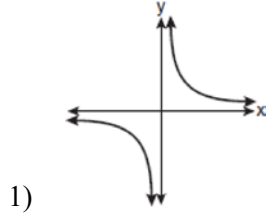
2   Which graph does *not* represent a function?

1)

2)

3)

4)

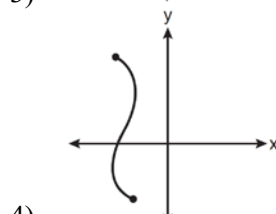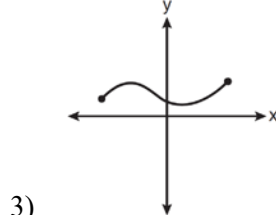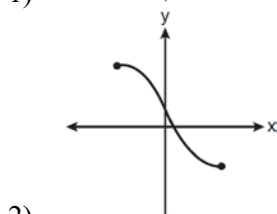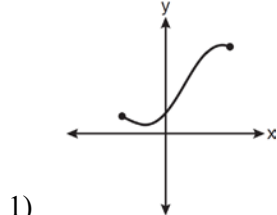3   Which graph represents a relation that is *not* a function?

1)

2)

3)

4)

4   Which graph represents a function?

1)

2)

3)

4)

5 Which graph represents a function?

1)

2)

3)

4)
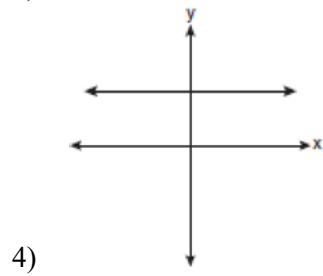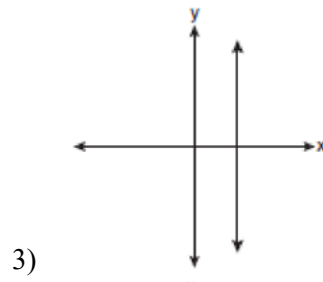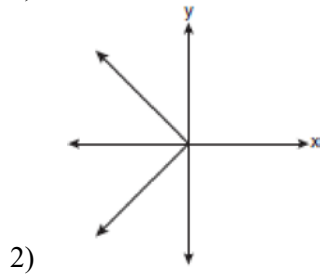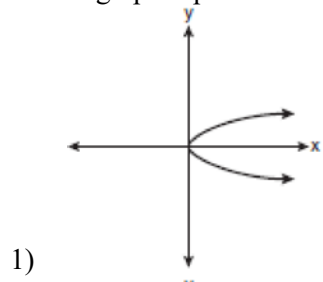
6 Which graph represents a function?
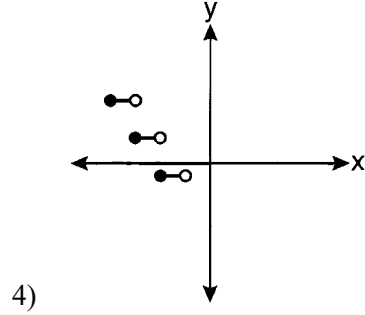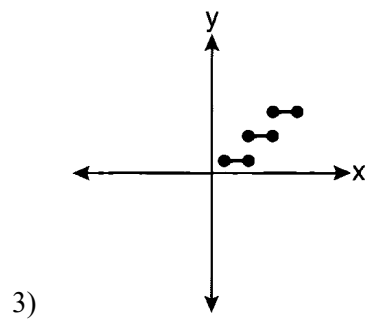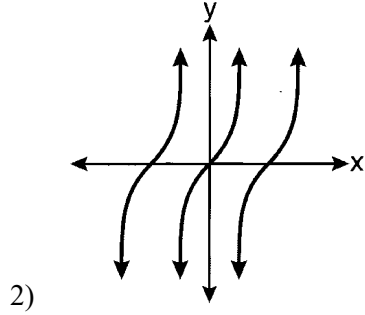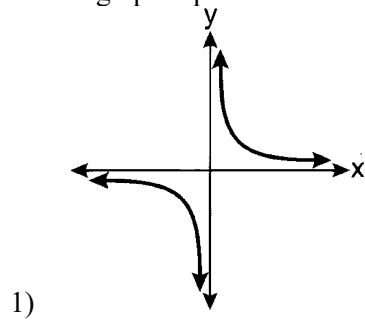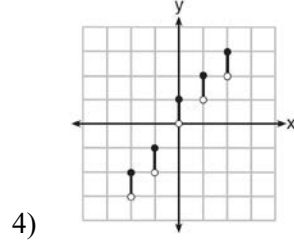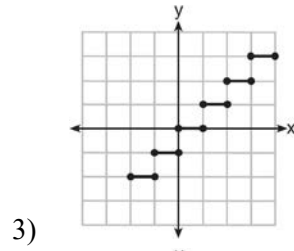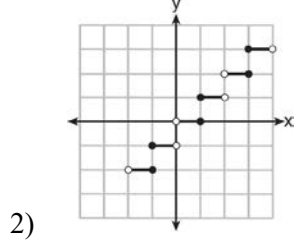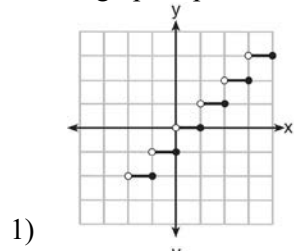
1)

2)

3)

4)

7   Which graph represents a function?

1)

3)

2)

4)

8   Which graph does *not* represent a function?

1)

3)

2)

4)

9   Which graph represents a function?

1)

3)

2)

4)
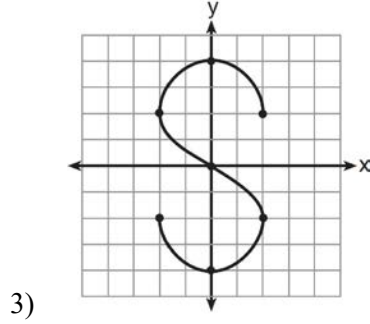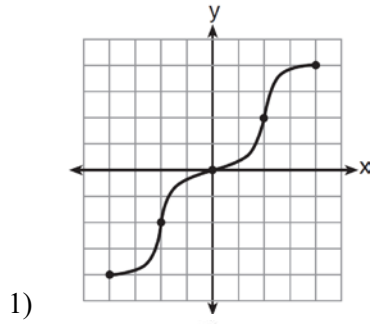
10   Which graph represents a function?

1)

3)

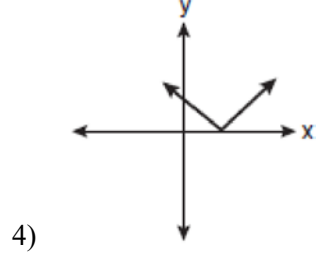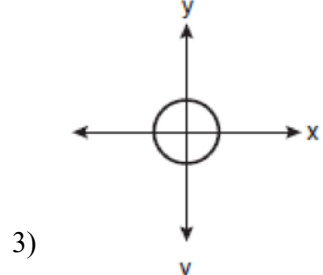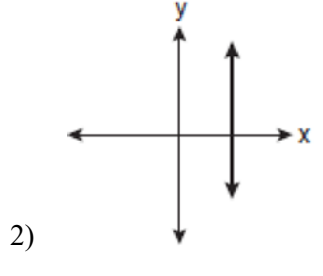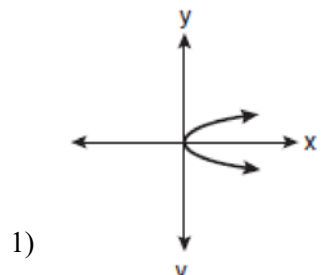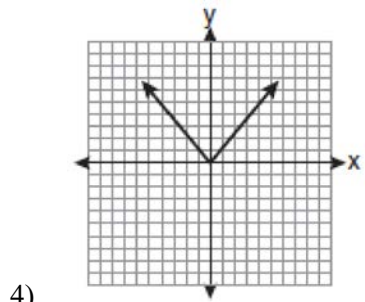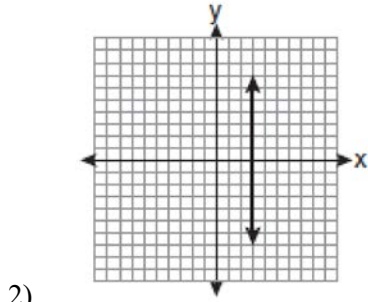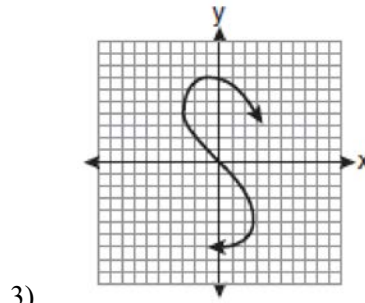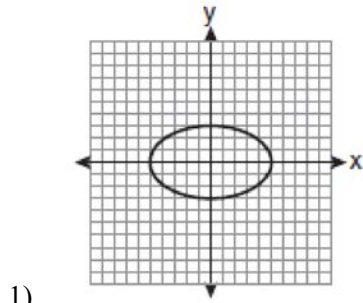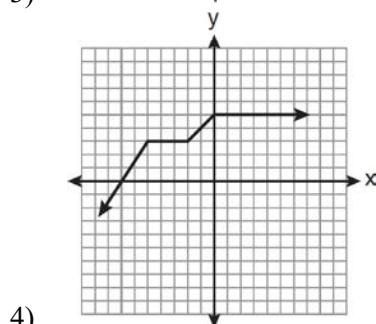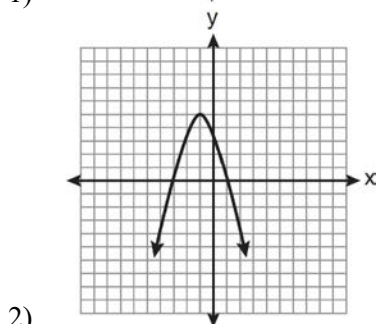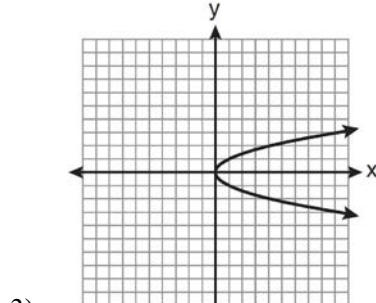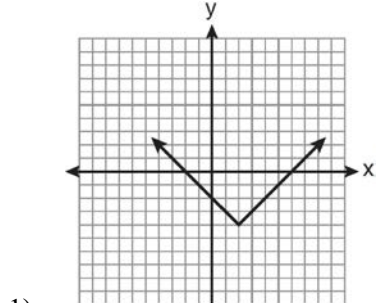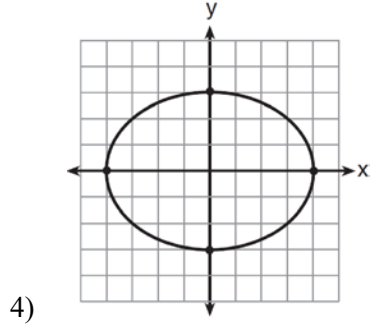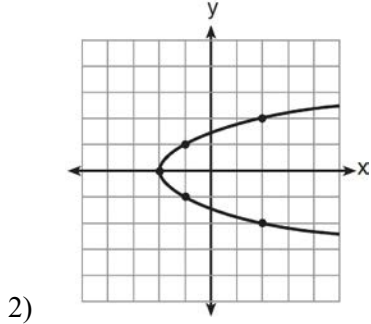2)

4)
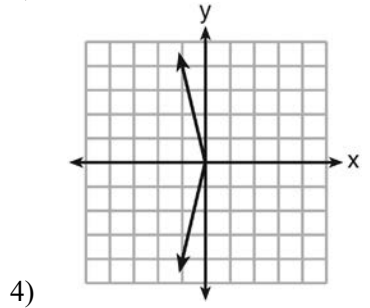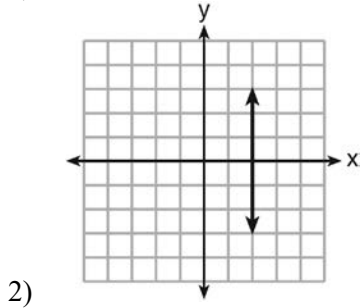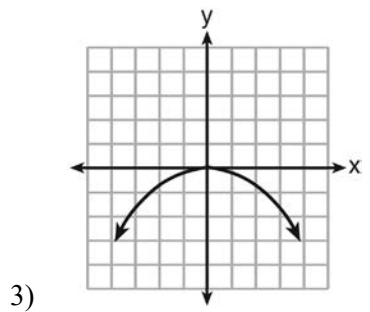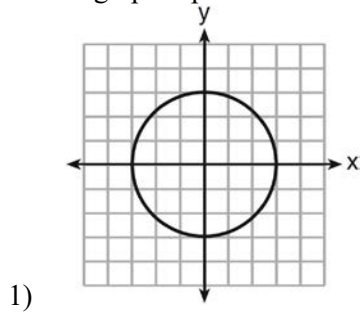
11 Which graph does *not* represent the graph of a function?

1)

2)

3)

4)
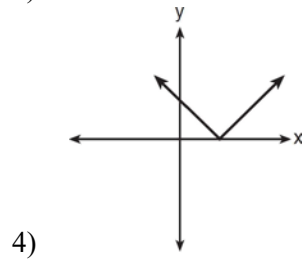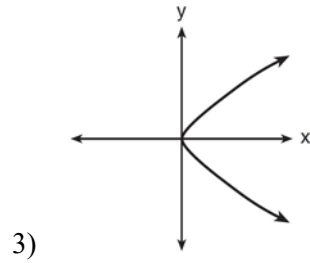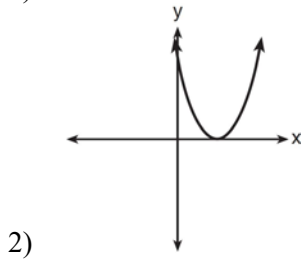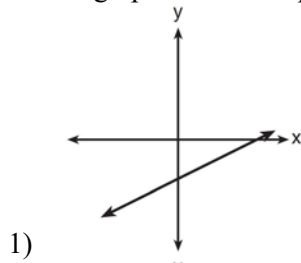
12 Which statement is true about the graphs of *f* and *g* shown below?
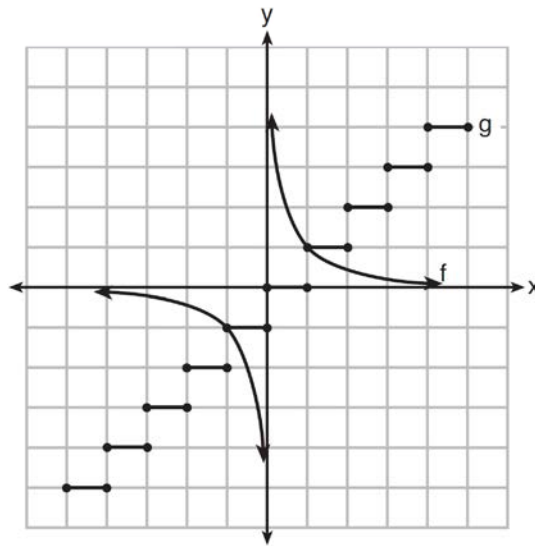
1) *f* is a relation and *g* is a function.
2) *f* is a function and *g* is a relation.
3) Both *f* and *g* are functions.
4) Neither *f* nor *g* is a function.

13   Which statement is true about the relation shown on the graph below?
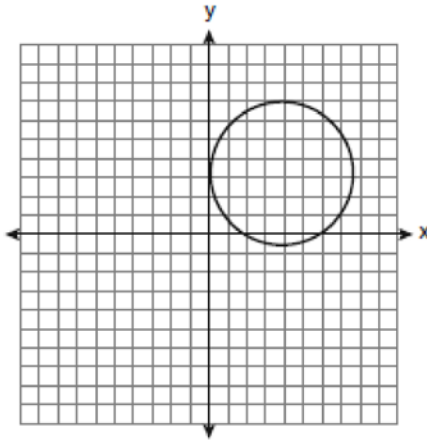
1)   It is a function because there exists one
     x-coordinate for each y-coordinate.

2)   It is a function because there exists one
     y-coordinate for each x-coordinate.

3)   It is *not* a function because there are
     multiple y-values for a given x-value.

4)   It is *not* a function because there are
     multiple x-values for a given y-value.

14   Which set of ordered pairs represents a function?
1) $\{(0,4),(2,4),(2,5)\}$
2) $\{(6,0),(5,0),(4,0)\}$
3) $\{(4,1),(6,2),(6,3),(5,0)\}$
4) $\{(0,4),(1,4),(0,5),(1,5)\}$

15   Which relation is *not* a function?
1) $\{(1,5),(2,6),(3,6),(4,7)\}$
2) $\{(4,7),(2,1),(-3,6),(3,4)\}$
3) $\{(-1,6),(1,3),(2,5),(1,7)\}$
4) $\{(-1,2),(0,5),(5,0),(2,-1)\}$

16   Which relation represents a function?
1) $\{(0,3),(2,4),(0,6)\}$
2) $\{(-7,5),(-7,1),(-10,3),(-4,3)\}$
3) $\{(2,0),(6,2),(6,-2)\}$
4) $\{(-6,5),(-3,2),(1,2),(6,5)\}$

17   Which relation is *not* a function?
1) $\{(2,4),(1,2),(0,0),(-1,2),(-2,4)\}$
2) $\{(2,4),(1,1),(0,0),(-1,1),(-2,4)\}$
3) $\{(2,2),(1,1),(0,0),(-1,1),(-2,2)\}$
4) $\{(2,2),(1,1),(0,0),(1,-1),(2,-2)\}$

18 Which relation is a function?
   1) $\{(2,1),(3,1),(4,1),(5,1)\}$
   2) $\{(1,2),(1,3),(1,4),(1,5)\}$
   3) $\{(2,3),(3,2),(4,2),(2,4)\}$
   4) $\{(1,6),(2,8),(3,9),(3,12)\}$

19 Which set is a function?
   1) $\{(3,4),(3,5),(3,6),(3,7)\}$
   2) $\{(1,2),(3,4),(4,3),(2,1)\}$
   3) $\{(6,7),(7,8),(8,9),(6,5)\}$
   4) $\{(0,2),(3,4),(0,8),(5,6)\}$

20 Which set of points does *not* represent a function?
   1) $\{(-3,-2),(-1,-2),(0,-1),(1,0)\}$
   2) $\{(-2,3),(0,4),(3,-2),(4,2)\}$
   3) $\{(2,-2),(1,4),(2,5),(3,6)\}$
   4) $\{(-2,4),(1,1),(2,4),(3,9)\}$

21 Which relation is a function?
   1) $\left\{\left(\frac{3}{4},0\right),(0,1),\left(\frac{3}{4},2\right)\right\}$
   2) $\left\{(-2,2),\left(-\frac{1}{2},1\right),(-2,4)\right\}$
   3) $\{(-1,4),(0,5),(0,4)\}$
   4) $\{(2,1),(4,3),(6,5)\}$

22 Given the relation $\{(8,2),(3,6),(7,5),(k,4)\}$, which value of k will result in the relation *not* being a function?
   1) 1
   2) 2
   3) 3
   4) 4

23 Which relation does *not* represent a function?

   1)
   2)
   3)
   4)

F.IF.A.1: Defining Functions 2
Answer Section

  1 ANS: 4   REF: fall0908a2
  2 ANS: 4   REF: 011101a2
  3 ANS: 3   REF: 061114a2
  4 ANS: 1   REF: 061409a2
  5 ANS: 4   REF: fall0730ia
  6 ANS: 4   REF: 010930ia
  7 ANS: 4   REF: 061013ia
  8 ANS: 3   REF: 011204ia
  9 ANS: 1   REF: 061209ia
10 ANS: 3   REF: 011309ia
11 ANS: 3   REF: 081308ia
12 ANS: 2   REF: 011507a2
13 ANS: 3   REF: 060919ia
14 ANS: 2

In (2), each element in the domain corresponds to a unique element in the range.

    REF: 061116ia
15 ANS: 3

An element of the domain, 1, is paired with two different elements of the range, 3 and 7.

    REF: 080919ia
16 ANS: 4

In (4), each element in the domain corresponds to a unique element in the range.

    REF: 011018ia
17 ANS: 4

An element of the domain, 1, is paired with two different elements of the range, 1 and −1.

    REF: 011405ia
18 ANS: 1   REF: 061413ia
19 ANS: 2   REF: 011514ia
20 ANS: 3   REF: 061612ia
21 ANS: 4

In (4), each element in the domain corresponds to a unique element in the range.

    REF: 011105ia
22 ANS: 3   REF: 011305a2
23 ANS: 3   REF: 011604a2