Name: _____

F.BF.B.3: Defining Functions 1

1 Which relation is *not* a function?
   1) $(x-2)^2 + y^2 = 4$
   2) $x^2 + 4x + y = 4$
   3) $x + y = 4$
   4) $xy = 4$

2 Which equation is *not* a function?
   1) $y = 3x^2 - 4$
   2) $y = \sin x$
   3) $y = \sec x$
   4) $x^2 = 16 - y^2$

3 Which relation is a function?
   1) $x^2 + y^2 = 16$
   2) $2x^2 + 6y^2 = 1$
   3) $y^2 = x^2 + 3x - 4$
   4) $y = x^2 + 3x - 4$

4 Which equation does *not* represent a function?
   1) $x = \pi$
   2) $y = 4$
   3) $y = |x|$
   4) $y = x^2 + 5x$

5 Which relation is a function?
   1) $xy = 7$
   2) $x = 7$
   3) $x^2 - y^2 = 7$
   4) $x^2 + y^2 = 7$

6 Which equation represents a function?
   1) $4y^2 = 36 - 9x^2$
   2) $y = x^2 - 3x - 4$
   3) $x^2 + y^2 = 4$
   4) $x = y^2 - 6x + 8$

7 Which relation is a function?
   1) $x = 4$
   2) $x = y^2 + 1$
   3) $y = \sin x$
   4) $x^2 + y^2 = 16$

8 Which relation is *not* a function?
   1) $y = 2x + 4$
   2) $x = 3y - 2$
   3) $y = x^2 - 4x + 3$
   4) $x = y^2 + 2x - 3$

9 Which equation is *not* a function?
   1) $3x^2 + 4y^2 = 12$
   2) $y = 2\cos x$
   3) $y = 2^x$
   4) $y = \log_2 x$

10 Which equation does *not* represent a function?
   1) $y = 2x$
   2) $y = x^2 + 10$
   3) $y = \dfrac{10}{x}$
   4) $x^2 + y^2 = 9$

11 Which relation is *not* a function?
   1) $y = 2|x| + 3$
   2) $y = -5(3.2)^x$
   3) $3x^2 + 3y = 20$
   4) $4x^2 + 3y^2 = 9$

12 Which relation is *not* a function?
   1) $xy = 4$
   2) $y = \log_4 x$
   3) $y = 4\sin x$
   4) $4x^2 - y^2 = 4$

13 Which relation is *not* a function?
   1) $\{(x,y) \mid y = \cos x\}$
   2) $\{(x,y) \mid x = y\}$
   3) $\{(x,y) \mid y = 3^x\}$
   4) $\{(x,y) \mid x = 3\}$

14 Which relation is *not* a function?
   1) $\left\{(x,y): y = |x|\right\}$
   2) $\left\{(x,y): y = -x^2\right\}$
   3) $\{(x,y): y = x\}$
   4) $\left\{(x,y): y = \pm\sqrt{x}\right\}$

F.BF.B.3: Defining Functions 1
Answer Section

  1 ANS: 1   REF: 061013a2
  2 ANS: 4   REF: 080812b
  3 ANS: 4   REF: 060805b
  4 ANS: 1   REF: 080605b
  5 ANS: 1   REF: 060511b
  6 ANS: 2   REF: 060213b
  7 ANS: 3   REF: 010211b
  8 ANS: 4   REF: 080101b
  9 ANS: 1   REF: 060026siii
10 ANS: 4   REF: 010026siii
11 ANS: 4

$4x^2 + 3y^2 = 9$ is an ellipse.

REF: 081615a2
12 ANS: 4   REF: 011712a2
13 ANS: 4   REF: 089731siii
14 ANS: 4   REF: 061612a2