

F.IF.A.1: Defining Functions 4

- 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) $y = \frac{10}{x}$
 - 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) $\{(x, y) : y = |x|\}$
 - 2) $\{(x, y) : y = -x^2\}$
 - 3) $\{(x, y) : y = x\}$
 - 4) $\{(x, y) : y = \pm\sqrt{x}\}$

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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