

**A2.A.38: Defining Functions 2: Determine when a relation is a function**

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)  $\{(x,y) \mid y = \cos x\}$
- 2)  $\{(x,y) \mid x = y\}$
- 3)  $\{(x,y) \mid y = 3^x\}$
- 4)  $\{(x,y) \mid x = 3\}$

**A2.A.38: Defining Functions 2: Determine when a relation is a function****Answer Section**

1	ANS: 1	PTS: 2	REF: 061013a2
2	ANS: 4	PTS: 2	REF: 080812b
3	ANS: 4	PTS: 2	REF: 060805b
4	ANS: 1	PTS: 2	REF: 080605b
5	ANS: 1	PTS: 2	REF: 060511b
6	ANS: 2	PTS: 2	REF: 060213b
7	ANS: 3	PTS: 2	REF: 010211b
8	ANS: 4	PTS: 2	REF: 080101b
9	ANS: 1	PTS: 2	REF: 060026siii
10	ANS: 4	PTS: 2	REF: 010026siii
11	ANS: 4	PTS: 2	REF: 089731siii