

A.A.15: Undefined Rationals 1: Find values of a variable for which an algebraic fraction is undefined

1 Which value of x makes the expression $\frac{x+4}{x-3}$

undefined?

- 1) -4
- 2) -3
- 3) 3
- 4) 0

5 Which value of x makes the expression $\frac{x+9}{3x-6}$

undefined?

- 1) -9
- 2) 2
- 3) -3
- 4) 0

2 The expression $\frac{x-3}{x+2}$ is undefined when the value of x is

- 1) -2 , only
- 2) -2 and 3
- 3) 3 , only
- 4) -3 and 2

6 The expression $\frac{2x^2+10x-28}{4x+28}$ is undefined when x is

- 1) 7 , only
- 2) -7 , only
- 3) 7 or -2
- 4) -7 or 2

3 Which value of n makes the expression $\frac{5n}{2n-1}$ undefined?

- 1) 1
- 2) 0
- 3) $-\frac{1}{2}$
- 4) $\frac{1}{2}$

7 For which value of x is $\frac{x-3}{x^2-4}$ undefined?

- 1) -2
- 2) 0
- 3) 3
- 4) 4

4 For which value of x is the expression $\frac{x+2}{2x-1}$ undefined?

- 1) 0
- 2) -2
- 3) $-\frac{1}{2}$
- 4) $\frac{1}{2}$

8 The expression $\frac{14+x}{x^2-4}$ is undefined when x is

- 1) -14 , only
- 2) 2 , only
- 3) -2 or 2
- 4) -14 , -2 , or 2

- 9 The function $y = \frac{x}{x^2 - 9}$ is undefined when the

value of x is

- 1) 0 or 3
- 2) 3 or -3
- 3) 3, only
- 4) -3 , only

- 10 The algebraic expression $\frac{x-2}{x^2-9}$ is undefined when

x is

- 1) 0
- 2) 2
- 3) 3
- 4) 9

- 11 The expression $\frac{x-7}{9-x^2}$ is undefined when x is

- 1) 3 and 7
- 2) 3 and -3
- 3) 3, only
- 4) 9

- 12 Which value of x makes the expression

$\frac{x^2-9}{x^2+7x+10}$ undefined?

- 1) -5
- 2) 2
- 3) 3
- 4) -3

- 13 For which set of values of x is the algebraic

expression $\frac{x^2-16}{x^2-4x-12}$ undefined?

- 1) $\{-6, 2\}$
- 2) $\{-4, 3\}$
- 3) $\{-4, 4\}$
- 4) $\{-2, 6\}$

- 14 For which values of x is the fraction $\frac{x^2+x-6}{x^2+5x-6}$

undefined?

- 1) 1 and -6
- 2) 2 and -3
- 3) 3 and -2
- 4) 6 and -1

- 15 A value of x that makes the expression

$\frac{x^2+4x-12}{x^2-2x-15}$ undefined is

- 1) -6
- 2) -2
- 3) 3
- 4) 5

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Answer Section

1 ANS: 3 REF: 060817ia

2 ANS: 1 REF: 061315ia

3 ANS: 4 REF: 060916ia

4 ANS: 4 REF: 011521ia

5 ANS: 2 REF: 061520ia

6 ANS: 2

$$4x + 28 = 0$$

$$4x = -28$$

$$x = -7$$

REF: 081417ia

7 ANS: 1 REF: fall0728ia

8 ANS: 3

$$x^2 - 4 = 0$$

$$(x + 2)(x - 2) = 0$$

$$x = \pm 2$$

REF: 081225ia

9 ANS: 2 REF: 010925ia

10 ANS: 3

$$x^2 - 9 = 0$$

$$(x + 3)(x - 3) = 0$$

$$x = \pm 3$$

REF: 061014ia

11 ANS: 2 REF: 061429ia

12 ANS: 1

$$x^2 + 7x + 10 = 0$$

$$(x + 5)(x + 2) = 0$$

$$x = -5 \text{ or } -2$$

REF: 080918ia

13 ANS: 4

$$x^2 - 4x - 12 = 0$$

$$(x - 6)(x + 2) = 0$$

$$x = 6 \text{ or } x = -2$$

REF: 061125ia

14 ANS: 1

$$x^2 + 5x - 6 = 0$$

$$(x + 6)(x - 1) = 0$$

$$x = -6, 1$$

REF: 011214ia

15 ANS: 4

$$x^2 - 2x - 15 = 0$$

$$(x + 3)(x - 5) = 0$$

$$x = -3, 5$$

REF: 081316ia