

A.APR.D.6: Undefined Rationals

- 1 Which value of x makes the expression $\frac{x+4}{x-3}$ undefined?
1) -4 2) -3 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
- 3 For which value of x is the expression $\frac{3x-6}{x-4}$ undefined?
1) 0 2) 2 3) -4 4) 4
- 4 For which value of x is the expression $\frac{x-7}{x+2}$ undefined?
1) -2 2) 2 3) 7 4) 0
- 5 For which value of x is the expression $\frac{3}{x-2}$ undefined?
1) -2 2) 2 3) 3 4) 0
- 6 For which value of x is the expression $\frac{6-x}{x+2}$ undefined?
1) -2 2) 2 3) 0 4) 6
- 7 For which value of x is the expression $\frac{3x-3}{x-5}$ undefined?
1) 1 2) -1 3) 5 4) -5
- 8 For which value of m is the expression $\frac{15m^2n}{3-m}$ undefined?
1) 1 2) 0 3) 3 4) -3
- 9 For which value of x will the fraction $\frac{3}{2x+4}$ be undefined?
1) -2 2) 2 3) 0 4) -4
- 10 What value of x would make the expression $\frac{x}{2x+1}$ undefined?
1) 0 2) $-\frac{1}{2}$ 3) -1 4) $\frac{1}{2}$
- 11 Which value of n makes the expression $\frac{5n}{2n-1}$ undefined?
1) 1 2) 0 3) $-\frac{1}{2}$ 4) $\frac{1}{2}$
- 12 For which value or values of n is the expression $\frac{n-1}{2n+4}$ undefined?
1) 1 , only 2) -2 , only 3) 1 and -2 4) 0
- 13 For which value of x is the expression $\frac{x+2}{2x-1}$ undefined?
1) 0 2) -2 3) $-\frac{1}{2}$ 4) $\frac{1}{2}$
- 14 Which value of x makes the expression $\frac{x+9}{3x-6}$ undefined?
1) -9 2) 2 3) -3 4) 0

- 15 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

- 16 For which value of x is $\frac{x-3}{x^2-4}$ undefined?
1) -2 2) 0 3) 3 4) 4

- 17 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

- 18 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

- 19 The algebraic expression $\frac{x-2}{x^2-9}$ is undefined when
 x is
1) 0 2) 2 3) 3 4) 9

- 20 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

- 21 The function $f(x) = \frac{x-3}{x^2+2x-8}$ is undefined when
 x equals
1) 2 or -4 2) 4 or -2 3) 3, only 4) 2, only

- 22 Which value of x makes the expression
 $\frac{x^2-9}{x^2+7x+10}$ undefined?
1) -5 2) 2 3) 3 4) -3

- 23 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) $\{-2, 6\}$

- 24 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

- 25 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

- 26 For which value of x is $\frac{1}{27-3^x}$ undefined?
1) 1 2) 0 3) 3 4) -3

- 27 Which expression is undefined when $w = 3$?
1) $\frac{w-3}{w+1}$ 2) $\frac{w^2+2w}{5w}$ 3) $\frac{w+1}{w^2-3w}$ 4) $\frac{3w}{3w^2}$

- 28 For what values of x is the fraction $\frac{4-x}{x^2-4}$
undefined?

- 29 For which *negative* values of x is the fraction
 $\frac{x+5}{x^2-x-6}$ undefined?

A.APR.D.6: Undefined Rationals**Answer Section**

- 1 ANS: 3 REF: 060817ia
 2 ANS: 1 REF: 061315ia
 3 ANS: 4 REF: 060319a
 4 ANS: 1 REF: 080422a
 5 ANS: 2 REF: 080610a
 6 ANS: 1 REF: 010822a
 7 ANS: 3 REF: 080821a
 8 ANS: 3 REF: 010917a
 9 ANS: 1 REF: 010607a
 10 ANS: 2 REF: 061626ia
 11 ANS: 4 REF: 060916ia
 12 ANS: 2 REF: 060217siii
 13 ANS: 4 REF: 011521ia
 14 ANS: 2 REF: 061520ia

15 ANS: 2
 $4x + 28 = 0$

$$4x = -28$$

$$x = -7$$

REF: 081417ia

16 ANS: 1 REF: fall0728ia

17 ANS: 3
 $x^2 - 4 = 0$

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

$$x = \pm 2$$

REF: 081225ia

18 ANS: 2 REF: 010925ia

19 ANS: 3
 $x^2 - 9 = 0$

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

$$x = \pm 3$$

REF: 061014ia

20 ANS: 2 REF: 061429ia

21 ANS: 1

$$x^2 + 2x - 8 = 0$$

$$(x + 4)(x - 2) = 0$$

$$x = -4, 2$$

REF: 081701aii

22 ANS: 1

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

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

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

REF: 080918ia

23 ANS: 4

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

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

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

REF: 061125ia

24 ANS: 1

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

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

$$x = -6, 1$$

REF: 011214ia

25 ANS: 4

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

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

$$x = -3, 5$$

REF: 081316ia

26 ANS: 3

REF: 060801b

27 ANS: 3

REF: 010716a

28 ANS:

$$-2, 2$$

REF: 060308siii

29 ANS:

$$-2$$

REF: 089906siii