

**A.A.15: Undefined Rationals 3: Find values of a variable for which an algebraic fraction is undefined**

1 For which value of  $x$  is the expression  $\frac{3x-6}{x-4}$

undefined?

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

2 For which value of  $x$  is the expression  $\frac{x-7}{x+2}$

undefined?

- 1) -2
- 2) 2
- 3) 7
- 4) 0

3 For which value of  $x$  is the expression  $\frac{3}{x-2}$

undefined?

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

4 For which value of  $x$  is the expression  $\frac{6-x}{x+2}$

undefined?

- 1) -2
- 2) 2
- 3) 0
- 4) 6

5 For which value of  $x$  is the expression  $\frac{3x-3}{x-5}$

undefined?

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

6 For which value of  $m$  is the expression  $\frac{15m^2n}{3-m}$

undefined?

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

7 For which value of  $x$  will the fraction  $\frac{3}{2x+4}$  be

undefined?

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

8 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

9 For which value of  $x$  is  $\frac{1}{27-3^x}$  undefined?

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

10 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)  $\frac{3w}{3w^2}$

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

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

**A.A.15: Undefined Rationals 3: Find values of a variable for which an algebraic fraction is undefined****Answer Section**

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|----|--------|-----------------|
| 1  | ANS: 4 | REF: 060319a    |
| 2  | ANS: 1 | REF: 080422a    |
| 3  | ANS: 2 | REF: 080610a    |
| 4  | ANS: 1 | REF: 010822a    |
| 5  | ANS: 3 | REF: 080821a    |
| 6  | ANS: 3 | REF: 010917a    |
| 7  | ANS: 1 | REF: 010607a    |
| 8  | ANS: 2 | REF: 060217siii |
| 9  | ANS: 3 | REF: 060801b    |
| 10 | ANS: 3 | REF: 010716a    |
| 11 | ANS:   |                 |
|    | -2, 2  |                 |

REF: 060308siii

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|----|------|--|
| 12 | ANS: |  |
|    | -2   |  |

REF: 089906siii