



## Rational Functions and Asymptotes - Degree Top and Bottom to Function

1 Which rational function has these numerator and denominator degrees?

**Numerator degree: 2**  
**Denominator degree: 2**

A	$f(x) = \frac{(x+1)}{2(x-2)}$	B	$f(x) = \frac{2(x+4)x}{3(x+2)(x-4)}$
C	$f(x) = \frac{(x-4)}{(x-1)(x-3)}$	D	$f(x) = \frac{2(x-2)(x-3)}{(x+4)x(x-1)}$

2 Which rational function has these numerator and denominator degrees?

**Numerator degree: 3**  
**Denominator degree: 3**

A	$f(x) = \frac{(x+3)(x+2)(x+1)}{3(x+4)x(x-3)}$	B	$f(x) = \frac{(x+3)(x-2)}{(x-4)}$
C	$f(x) = \frac{4(x+4)(x+3)}{3(x-3)(x-4)}$	D	$f(x) = \frac{(x-3)}{(x+3)x(x-2)}$

3 Which rational function has these numerator and denominator degrees?

**Numerator degree: 1**  
**Denominator degree: 1**

A	$f(x) = \frac{4x}{3(x-2)}$	B	$f(x) = \frac{(x+1)x(x-2)}{(x+3)(x-3)}$
C	$f(x) = \frac{5(x+2)(x-2)(x-3)}{4(x+3)(x+1)(x-4)}$	D	$f(x) = \frac{(x+4)(x+3)x}{(x+2)(x+1)}$

4 Which rational function has these numerator and denominator degrees?

**Numerator degree: 2**  
**Denominator degree: 3**

A	$f(x) = \frac{(x+3)(x-2)}{(x+4)(x-1)(x-3)}$	B	$f(x) = \frac{2(x+2)}{(x+4)(x-4)}$
C	$f(x) = \frac{(x+1)}{5(x+4)}$	D	$f(x) = \frac{(x+4)(x-2)}{(x-3)}$

5 Which rational function has these numerator and denominator degrees?

**Numerator degree: 1**  
**Denominator degree: 2**

A	$f(x) = \frac{(x-3)}{(x+4)(x+3)(x+1)}$	B	$f(x) = \frac{4(x-3)}{3(x+1)}$
C	$f(x) = \frac{2(x+4)(x-1)(x-4)}{2(x+1)x(x-3)}$	D	$f(x) = \frac{(x-3)}{(x+2)(x-4)}$

6 Which rational function has these numerator and denominator degrees?

**Numerator degree: 1**  
**Denominator degree: 3**

A	$f(x) = \frac{2(x-4)}{(x+4)(x+3)(x+2)}$	B	$f(x) = \frac{4(x+3)}{5(x-4)}$
C	$f(x) = \frac{(x+1)(x-4)}{x}$	D	$f(x) = \frac{(x+4)x}{(x+3)(x+1)(x-2)}$

7 Which rational function has these numerator and denominator degrees?

**Numerator degree: 2**  
**Denominator degree: 1**

A	$f(x) = \frac{2(x+2)}{x(x-2)(x-3)}$	B	$f(x) = \frac{(x+4)(x-2)}{(x-3)}$
C	$f(x) = \frac{(x+4)(x+2)x}{(x+1)(x-4)}$	D	$f(x) = \frac{(x+4)}{(x+3)(x+2)}$

8 Which rational function has these numerator and denominator degrees?

**Numerator degree: 3**  
**Denominator degree: 2**

A	$f(x) = \frac{(x+2)(x-3)(x-4)}{(x+4)(x+1)}$	B	$f(x) = \frac{(x+4)(x-1)(x-2)}{(x+3)(x+1)}$
C	$f(x) = \frac{3x}{3(x+2)}$	D	$f(x) = \frac{(x-1)(x-2)}{(x-4)}$