



## Rational Functions and Asymptotes - Vertical Asymptote Existence to Function

1

Which rational function does not have a vertical asymptote?

Vertical Asymptote Does Not Exist

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

Which rational function has a vertical asymptote?

Vertical Asymptote Exists

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