



## Rational Functions and Asymptotes - Locate Holes (Factored)

1 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{(x-1)(x-3)}{x(x-1)(x-3)}$$

A  $x = -3, x = -1$

B  $x = 1, x = 3$

C  $x = 0$

D No holes

2 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{3(x+2)(x-4)}{(x-4)}$$

A  $x = 4$

B  $x = -4$

C  $x = -2$

D No holes

3 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{(x-1)}{(x+1)(x-1)}$$

A  $x = -1$

B  $x = 1$

C  $x = -1, x = 1$

D No holes

4 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{2(x+4)(x-3)}{x(x-3)}$$

A  $x = 0$

B  $x = -3$

C  $x = -4$

D  $x = 3$

5 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{3x(x-3)}{(x-3)}$$

A  $x = 3$

B  $x = 0$

C  $x = -3$

D No holes

6 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{2(x-1)}{(x+2)(x-1)}$$

A  $x = 1$

B  $x = -2$

C  $x = -1$

D No holes

7 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{(x+1)}{(x+1)(x-2)}$$

A No holes

B  $x = -1$

C  $x = 2$

D  $x = 1$

8 Where are the holes when this polynomial is divided by this binomial?

$$f(x) = \frac{(x+4)x}{(x+4)x}$$

A No holes

B  $x = 1$

C  $x = 0, x = 4$

D  $x = -4, x = 0$