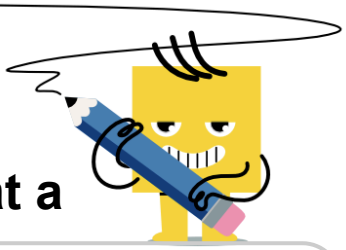
Name



# Rational Function Inequalities - Three Factors over Binomial - Sign Change at a Point

**1**

Does the sign of this rational function change at x = -2?

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

| A | B |
|---|---|
| Yes | No |

**2**

Does the sign of this rational function change at x = 0?

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

| A | B |
|---|---|
| Yes | No |

**3**

Does the sign of this rational function change at x = 4?

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

| A | B |
|---|---|
| Yes | No |

**4**

Does the sign of this rational function change at x = 3?

$$\frac{(x+3)x(x-3)}{x-1}$$

| A | B |
|---|---|
| No | Yes |

**5**

Does the sign of this rational function change at x = 4?

$$\frac{(x-1)(x-2)(x-3)}{x+3}$$

| A | B |
|---|---|
| Yes | No |

**6**

Does the sign of this rational function change at x = 0?

$$\frac{(x+3)(x+1)(x-1)}{x-2}$$

| A | B |
|---|---|
| No | Yes |

**7**

Does the sign of this rational function change at x = 3?

$$\frac{x(x-1)(x-3)}{x-4}$$

| A | B |
|---|---|
| No | Yes |

**8**

Does the sign of this rational function change at x = -2?

$$\frac{(x+4)(x-1)(x-2)}{x+1}$$

| A | B |
|---|---|
| No | Yes |