



Rational Function Inequalities - Three Factors with Multiplicity over Binomial - Intervals

1 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 4)^4(x - 2)^2(x - 4)^3}{x}$	2 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 4)^5(x + 1)^5x^2}{x + 2}$
A $(-\infty, 0) \cup (0, 2) \cup (2, 4) \cup (4, \infty)$	B $(-\infty, 0) \cup (0, 4) \cup (4, \infty)$	A $(-\infty, -4) \cup (-4, -2) \cup (-2, -1) \cup (-1, 1) \cup (1, \infty)$	B $(-\infty, -4) \cup (-4, -2) \cup (-2, -1) \cup (-1, 0) \cup (0, \infty)$
C $(-\infty, -4) \cup (-4, 0) \cup (0, 4) \cup (4, \infty)$	D $(-\infty, -3) \cup (-3, 0) \cup (0, 4) \cup (4, \infty)$	C $(-\infty, -4) \cup (-4, -2) \cup (-2, -1) \cup (-1, \infty)$	D $(-\infty, -4) \cup (-4, -3) \cup (-3, -2) \cup (-2, -1) \cup (-1, \infty)$
3 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x - 1)^3(x - 2)^4(x - 4)^2}{x + 3}$	4 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 1)^2x^5(x - 4)^3}{x + 4}$
A $(-\infty, -4) \cup (-4, -3) \cup (-3, 1) \cup (1, \infty)$	B $(-\infty, -3) \cup (-3, 1) \cup (1, 4) \cup (4, \infty)$	A $(-\infty, -4) \cup (-4, 0) \cup (0, 4) \cup (4, \infty)$	B $(-\infty, -4) \cup (-4, -3) \cup (-3, 0) \cup (0, 4) \cup (4, \infty)$
C $(-\infty, -3) \cup (-3, 1) \cup (1, \infty)$	D $(-\infty, -3) \cup (-3, 1) \cup (1, 2) \cup (2, \infty)$	C $(-\infty, -4) \cup (-4, -2) \cup (-2, 0) \cup (0, 4) \cup (4, \infty)$	D $(-\infty, -4) \cup (-4, -1) \cup (-1, 0) \cup (0, 4) \cup (4, \infty)$
5 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 1)^5(x - 1)^4(x - 3)^4}{x - 4}$	6 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 3)^2x^2(x - 2)^3}{x + 2}$
A $(-\infty, -1) \cup (-1, 3) \cup (3, 4) \cup (4, \infty)$	B $(-\infty, -1) \cup (-1, 4) \cup (4, \infty)$	A $(-\infty, -3) \cup (-3, -2) \cup (-2, 2) \cup (2, \infty)$	B $(-\infty, -2) \cup (-2, 0) \cup (0, 2) \cup (2, \infty)$
C $(-\infty, -1) \cup (-1, 1) \cup (1, 4) \cup (4, \infty)$	D $(-\infty, -4) \cup (-4, -1) \cup (-1, 4) \cup (4, \infty)$	C $(-\infty, -4) \cup (-4, -2) \cup (-2, 2) \cup (2, \infty)$	D $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$
7 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 3)^5(x - 2)(x - 3)^4}{x - 1}$	8 On which set of open intervals does this rational function keep a constant sign?	$\frac{(x + 4)(x + 1)^4(x - 2)^4}{x + 3}$
A $(-\infty, -3) \cup (-3, 1) \cup (1, 2) \cup (2, \infty)$	B $(-\infty, -3) \cup (-3, -2) \cup (-2, 1) \cup (1, 2) \cup (2, \infty)$	A $(-\infty, -4) \cup (-4, -3) \cup (-3, 2) \cup (2, \infty)$	B $(-\infty, -4) \cup (-4, -3) \cup (-3, \infty)$
C $(-\infty, -3) \cup (-3, 1) \cup (1, 2) \cup (2, 3) \cup (3, \infty)$	D $(-\infty, -4) \cup (-4, -3) \cup (-3, 1) \cup (1, 2) \cup (2, \infty)$	C $(-\infty, -4) \cup (-4, -3) \cup (-3, -1) \cup (-1, \infty)$	D $(-\infty, -4) \cup (-4, -3) \cup (-3, -2) \cup (-2, \infty)$