



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

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