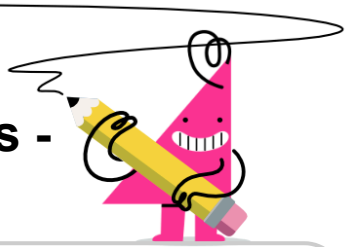
Name

Polynomial Inequalities - Three Factors - Solution Set



1 Which set of values satisfies this inequality?

$$(x+4)(x-2)(x-4) > 0$$

A $(-\infty, -4) \cup (-3, 2) \cup (4, \infty)$	B $(-\infty, -4) \cup (2, 4)$
C $(-\infty, -4) \cup (-4, 2) \cup (2, 4) \cup (4, \infty)$	D $(-4, 2) \cup (4, \infty)$

2 Which set of values satisfies this inequality?

$$(x+3)(x+2)(x-2) < 0$$

A $(\infty, -3) \cup (-3, -2) \cup (-2, 2) \cup (2, \infty)$	B $(-3, -2) \cup (2, \infty)$
C $(-4, -3) \cup (-2, 2)$	D $(-\infty, -3) \cup (-2, 2)$

3 Which set of values satisfies this inequality?

$$x(x-1)(x-2) < 0$$

A $(-4, 0) \cup (1, 2)$	B $(\infty, 0) \cup (0, 1) \cup (1, 2) \cup (2, \infty)$
C $(-\infty, 0) \cup (1, 2)$	D $(0, 1) \cup (2, \infty)$

4 Which set of values satisfies this inequality?

$$(x+4)(x-1)(x-4) > 0$$

A $(-\infty, -4) \cup (1, 4)$	B $(-\infty, -4) \cup (-3, 1) \cup (4, \infty)$
C $(-4, 1) \cup (4, \infty)$	D $(\infty, -4) \cup (-4, 1) \cup (1, 4) \cup (4, \infty)$

5 Which set of values satisfies this inequality?

$$(x+4)(x+2)x < 0$$

A $(-\infty, -4) \cup (-2, 0)$	B $(-4, -2) \cup (0, \infty)$
C $(-4, -3) \cup (-2, 0)$	D $(\infty, -4) \cup (-4, -2) \cup (-2, 0) \cup (0, \infty)$

6 Which set of values satisfies this inequality?

$$(x+2)(x+1)x > 0$$

A $(-\infty, -4) \cup (-2, -1) \cup (0, \infty)$	B $(-\infty, -2) \cup (-1, 0)$
C $(-2, -1) \cup (0, \infty)$	D $(\infty, -2) \cup (-2, -1) \cup (-1, 0) \cup (0, \infty)$

7 Which set of values satisfies this inequality?

$$(x-2)(x-3)(x-4) < 0$$

A $(\infty, 2) \cup (2, 3) \cup (3, 4) \cup (4, \infty)$	B $(2, 3) \cup (4, \infty)$
C $(-4, 2) \cup (3, 4)$	D $(-\infty, 2) \cup (3, 4)$

8 Which set of values satisfies this inequality?

$$(x+2)(x-2)(x-3) > 0$$

A $(-\infty, -4) \cup (-2, 2) \cup (3, \infty)$	B $(-2, 2) \cup (3, \infty)$
C $(-\infty, -2) \cup (2, 3)$	D $(\infty, -2) \cup (-2, 2) \cup (2, 3) \cup (3, \infty)$