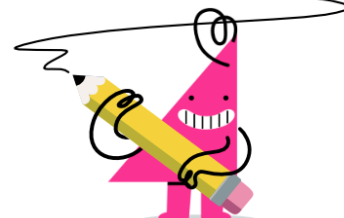




Polynomial Inequalities - Two Factors with Multiplicity - Solution Set



1 Which set of values satisfies this inequality?

$$(x + 3)^4 x^3 < 0$$

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

2 Which set of values satisfies this inequality?

$$(x - 1)^2 (x - 3) < 0$$

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

3 Which set of values satisfies this inequality?

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

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

4 Which set of values satisfies this inequality?

$$(x + 1)^3 (x - 2)^2 < 0$$

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

5 Which set of values satisfies this inequality?

$$(x + 1)^4 (x - 3)^3 < 0$$

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

6 Which set of values satisfies this inequality?

$$(x + 3)^4 (x - 3) > 0$$

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

7 Which set of values satisfies this inequality?

$$(x - 1)^3 (x - 2)^4 < 0$$

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

8 Which set of values satisfies this inequality?

$$(x + 1)^5 (x - 3)^4 < 0$$

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