



Polynomial Inequalities - Three Factors with Multiplicity - Sign Change at a Point

1 Does the sign of this polynomial change at $x = -4$?

$$(x + 4)^5(x + 3)^2(x - 4)^3$$

A
No

B
Yes

2 Does the sign of this polynomial change at $x = -3$?

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

A
No

B
Yes

3 Does the sign of this polynomial change at $x = 3$?

$$x^5(x - 1)^2(x - 4)^2$$

A
Yes

B
No

4 Does the sign of this polynomial change at $x = -3$?

$$(x + 2)^2x^5(x - 4)^4$$

A
No

B
Yes

5 Does the sign of this polynomial change at $x = 2$?

$$(x + 1)^5x^2(x - 4)^2$$

A
Yes

B
No

6 Does the sign of this polynomial change at $x = -1$?

$$(x + 4)^2(x + 2)^4(x - 4)^3$$

A
Yes

B
No

7 Does the sign of this polynomial change at $x = -4$?

$$(x + 4)^2(x + 1)(x - 4)^4$$

A
Yes

B
No

8 Does the sign of this polynomial change at $x = 4$?

$$(x + 4)^5(x + 1)^2x$$

A
Yes

B
No