Name

Polynomial Inequalities - Three Factors with Multiplicity - Inequality Validity Chart

1 Which chart correctly shows the intervals where this inequality is valid?

$$x^2(x-1)^4(x-4)^5 < 0$$

A

Interval	Valid
(-?, 4)	No
(4, ?)	Yes

B

Interval	Valid
(-?, 4)	Yes
(4, ?)	No

C

Interval	Valid
(-?, 0)	No
(0, 4)	Yes
(4, ?)	No

D

Interval	Valid
(-?, 1)	No
(1, 4)	Yes
(4, ?)	No

2 Which chart correctly shows the intervals where this inequality is valid?

$$(x+2)^4(x-3)^5(x-4)^4 > 0$$

A

Interval	Valid
(-?, 3)	Yes
(3, ?)	No

B

Interval	Valid
(-?, 3)	Yes
(3, 4)	No
(4, ?)	Yes

C

Interval	Valid
(-?, -2)	Yes
(-2, 3)	No
(3, ?)	Yes

D

Interval	Valid
(-?, 3)	No
(3, ?)	Yes

3 Which chart correctly shows the intervals where this inequality is valid?

$$x^2(x-2)^5(x-4)^3 < 0$$

A

Interval	Valid
(-?, 0)	Yes
(0, 2)	No
(2, 4)	Yes
(4, ?)	No

B

Interval	Valid
(-?, 2)	No
(2, 4)	Yes
(4, ?)	No

C

Interval	Valid
(-?, -4)	Yes
(-4, 2)	No
(2, 4)	Yes
(4, ?)	No

D

Interval	Valid
(-?, 2)	Yes
(2, 4)	No
(4, ?)	Yes

4 Which chart correctly shows the intervals where this inequality is valid?

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

A

Interval	Valid
(-?, -2)	Yes
(-2, 3)	No
(3, ?)	Yes

B

Interval	Valid
(-?, 3)	Yes
(3, ?)	No

C

Interval	Valid
(-?, 3)	No
(3, ?)	Yes

D

Interval	Valid
(-?, -3)	Yes
(-3, 3)	No
(3, ?)	Yes

5 Which chart correctly shows the intervals where this inequality is valid?

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

A

Interval	Valid
(-?, -4)	Yes
(-4, 1)	No
(1, ?)	Yes

B

Interval	Valid
(-?, -1)	Yes
(-1, 1)	No
(1, ?)	Yes

C

Interval	Valid
(-?, 1)	No
(1, ?)	Yes

D

Interval	Valid
(-?, 1)	Yes
(1, ?)	No

6 Which chart correctly shows the intervals where this inequality is valid?

$$(x+4)^3x^2(x-2)^2 > 0$$

A

Interval	Valid
(-?, -4)	Yes
(-4, 0)	No
(0, ?)	Yes

B

Interval	Valid
(-?, -4)	Yes
(-4, ?)	No

C

Interval	Valid
(-?, -4)	Yes
(-4, 2)	No
(2, ?)	Yes

D

Interval	Valid
(-?, -4)	No
(-4, ?)	Yes

7 Which chart correctly shows the intervals where this inequality is valid?

$$(x+1)^2x^4(x-3)^3 > 0$$

A

Interval	Valid
(-?, 0)	Yes
(0, 3)	No
(3, ?)	Yes

B

Interval	Valid
(-?, -1)	Yes
(-1, 3)	No
(3, ?)	Yes

C

Interval	Valid
(-?, 3)	Yes
(3, ?)	No

D

Interval	Valid
(-?, 3)	No
(3, ?)	Yes

8 Which chart correctly shows the intervals where this inequality is valid?

$$(x+4)^5(x+1)^5(x-1)^2 > 0$$

A

Interval	Valid
(-?, -4)	No
(-4, -1)	Yes
(-1, ?)	No

B

Interval	Valid
(-?, -4)	Yes
(-4, -1)	No
(-1, ?)	Yes

C

Interval	Valid
(-?, -4)	No
(-4, -1)	Yes
(-1, 1)	No
(1, ?)	Yes

D

Interval	Valid
(-?, -4)	No
(-4, -3)	Yes
(-3, -1)	No
(-1, ?)	Yes