Name

Rational Function Inequalities - Two Factors with Multiplicity over Binomial - Inequality Validity Chart

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

$$\frac{(x+3)(x+1)^4}{x-4} > 0$$

A

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

B

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

C

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

D

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

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

$$\frac{(x+1)^2(x-3)^5}{x+4} > 0$$

A

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

B

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

C

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

D

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

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

$$\frac{(x-1)(x-2)^4}{x-4} < 0$$

A

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

B

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

C

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

D

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

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

$$\frac{(x+2)^4(x-3)}{x+4} < 0$$

A

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

B

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

C

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

D

Interval	Valid
(-?, -4)	Yes
(-4, -2)	No
(-2, 3)	Yes
(3, ?)	No

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

$$\frac{(x+3)(x+1)^4}{x-3} > 0$$

A

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

B

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

C

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

D

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

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

$$\frac{x^2(x-4)^5}{x+3} < 0$$

A

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

B

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

C

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

D

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

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

$$\frac{(x-3)^4(x-4)^3}{x-1} > 0$$

A

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

B

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

C

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

D

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

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

$$\frac{x^2(x-1)^5}{x+1} > 0$$

A

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

B

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

C

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

D

Interval	Valid
(-?, -1)	No
(-1, 0)	Yes
(0, 1)	No
(1, ?)	Yes