

Algebra/Trig Worksheet  
Rational Zero Test & Descartes Rule of Signs

1.  $f(x) = x^3 - 2x^2 - 21x - 18$

████████████████████  
# of possible positive zeros:  
# of possible negative zeros:  
Find all the real zeros:

2.  $f(x) = 3x^3 - 20x^2 + 7x + 30$

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# of possible positive zeros:  
# of possible negative zeros:

3.  $f(x) = x^3 - 10x^2 + 17x - 8$

████████████████████:  
# of possible positive zeros:  
# of possible negative zeros:  
Find all the real zeros:

4.  $f(x) = x^3 + 9x^2 + 24x + 20$

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# of possible positive zeros:

# of possible negative zeros:

5.  $f(x) = x^4 + x^3 - 11x^2 + x - 12$

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# of possible positive zeros:

# of possible negative zeros:

Find all the real zeros:

6.  $f(x) = 24x^4 + 25x^3 + 154x^2 - 4x + 24$

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# of possible positive zeros:

# of possible negative zeros:

7.  $f(x) = 4x^3 - 11x^2 + 10x - 3$

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# of possible positive zeros:

# of possible negative zeros:

Find all the real zeros:

8.  $f(x) = x^3 - 3x^2 + 3x + 2$

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# of possible positive zeros:

# of possible negative zeros:

9.  $f(x) = 6x^4 - 25x^3 + 14x^2 + 27x - 18$

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# of possible positive zeros:

# of possible negative zeros:

Find all the real zeros:

10.  $f(x) = x^5 + 2x^3 - 3x - 20$

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# of possible positive zeros:

# of possible negative zeros:

Find all the real zeros: