Task card 1 The Rational Root Theorem

According to the Rational Root Theorem, could 9 be a root of $f(x) = 2x^3 + 2x^2 - 4x + 10$? Write yes or no.

Task card 2 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = 2x^3 + 4x^2 + 7x + 9$?

Task card 3 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{8}{5}$ be a root of $f(x) = x^3 - 3x^2 + 5x + 10$? Write yes or no.

Task card 4 The Rational Root Theorem

$f(x) = x^3 - 3x^2 - 5x - 1$ has exactly one rational root. Find it.

Task card 5 The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{3}{2}$ be a root of $f(x) = 3x^3 - x^2 + x + 3$? Write yes or no.

Task card 6 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = x^3 - 4x^2 + 7x + 4$?

Task card 7 The Rational Root Theorem

$f(x) = x^3 + 3x^2 - 3x - 5$ has exactly one rational root. Find it.

Task card 8 The Rational Root Theorem

According to the Rational Root Theorem, could 1 be a root of $f(x) = x^3 + 3x^2 + 4x + 10$? Write yes or no.

Task card 9 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{9}{4}$ be a root of $f(x) = 2x^3 - x^2 + x + 15$? Write yes or no.

Task card 10 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = 3x^3 + 4x^2 - 4x + 4$?

Task card 11 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{4}{5}$ be a root of $f(x) = 2x^3 + 3x^2 - 6x - 5$? Write yes or no.

Task card 12 The Rational Root Theorem

$f(x) = x^3 - x^2 - 2x + 8$ has exactly one rational root. Find it.

Task card 13 The Rational Root Theorem

According to the Rational Root Theorem, could -1 be a root of $f(x) = x^3 - 3x^2 + 2x + 3$? Write yes or no.

Task card 14 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = 3x^3 + 7x^2 + 7x + 9$?

Task card 15 The Rational Root Theorem

$f(x) = 2x^3 + 7x^2 + 12x + 9$ has exactly one rational root. Find it.

Task card 16 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{7}{4}$ be a root of $f(x) = x^3 - 6x^2 + 5x + 10$? Write yes or no.

Task card 17 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{7}{3}$ be a root of $f(x) = 6x^3 - x^2 + 3x + 9$? Write yes or no.

Task card 18 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = 6x^3 - 7x^2 - 4x - 10$?

Task card 19 The Rational Root Theorem

$f(x) = 4x^3 + 5x^2 + 21x + 5$ has exactly one rational root. Find it.

Task card 20 The Rational Root Theorem

$f(x) = 3x^3 - 17x^2 + 17x + 5$ has exactly one rational root. Find it.

Task card 21 The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{5}{3}$ be a root of $f(x) = 2x^3 + 4x^2 + 8x + 4$? Write yes or no.

Task card 22 The Rational Root Theorem

How many different possible rational roots (counting + and - separately) does the Rational Root Theorem list for $f(x) = 3x^3 + 4x^2 - 9x + 10$?

Task card 23 The Rational Root Theorem

$f(x) = 3x^3 + 2x^2 + 8x - 3$ has exactly one rational root. Find it.

Task card 24 The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{1}{2}$ be a root of $f(x) = 2x^3 + 5x^2 - 6x + 15$? Write yes or no.

The Rational Root Theorem Task Cards

Recording sheet · Grade 11 · Use the Rational Root Theorem.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

The Rational Root Theorem Task Cards: Answer Key

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The answers online

1. no	**2.** 12	**3.** no
4. -1	**5.** no	**6.** 6
7. -1	**8.** yes	**9.** no
10. 12	**11.** no	**12.** -2
13. yes	**14.** 8	**15.** $-\frac{3}{2}$
16. no	**17.** no	**18.** 24
19. $-\frac{1}{4}$	**20.** $\frac{5}{3}$	**21.** no
22. 16	**23.** $\frac{1}{3}$	**24.** yes