Task card 1 The Rational Root Theorem

According to the Rational Root Theorem, could 5 be a root of $f(x) = 4x^3 + 6x - 8$? 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 $f(x) = 3x^3 - 4x^2 + 4x + 8$?

Task card 3 The Rational Root Theorem

$f(x) = 2x^3 + x^2 - 27x + 30$ has exactly one rational root. Find it.

Task card 4 The Rational Root Theorem

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

Task card 5 The Rational Root Theorem

According to the Rational Root Theorem, could -3 be a root of $f(x) = 5x^3 + 7x^2 - 7x + 15$? 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 $f(x) = 6x^3 + 3x^2 - 5x - 10$?

Task card 7 The Rational Root Theorem

$f(x) = 4x^3 + 7x^2 - 6x + 1$ 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 $f(x) = 3x^3 - 3x^2 + 5x + 2$? Write yes or no.

Task card 9 The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{7}{2}$ be a root of $f(x) = 2x^3 - x^2 - x + 6$? 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 $f(x) = 4x^3 - x^2 + 7x + 8$?

Task card 11 The Rational Root Theorem

$f(x) = 2x^3 + 5x^2 - 15x + 6$ has exactly one rational root. Find it.

Task card 12 The Rational Root Theorem

$f(x) = 3x^3 + 10x^2 + 7x - 10$ has exactly one rational root. Find it.

Task card 13 — The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{1}{4}$ be a root of $f(x) = 4x^3 - 7x^2 - 5x + 9$? 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 $f(x) = 3x^3 + 7x + 15$?

Task card 15 — The Rational Root Theorem

$f(x) = 4x^3 - 17x^2 + 35x - 25$ has exactly one rational root. Find it.

Task card 16 — The Rational Root Theorem

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

Task card 17 — The Rational Root Theorem

According to the Rational Root Theorem, could $-\frac{4}{5}$ be a root of $f(x) = 3x^3 + 2x^2 - 2x - 4$? 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 $f(x) = 4x^3 + x^2 + 4x + 10$?

Task card 19 The Rational Root Theorem

$f(x) = 2x^3 + 3x^2 + x + 15$ has exactly one rational root. Find it.

Task card 20 The Rational Root Theorem

$f(x) = 2x^3 - 5x^2 - 7x - 2$ has exactly one rational root. Find it.

Task card 21 The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{2}{5}$ be a root of $f(x) = 5x^3 + 6x^2 - 9x - 4$? 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 $f(x) = 2x^3 - 2x^2 + 4x - 6$?

Task card 23 The Rational Root Theorem

$f(x) = 2x^3 + 9x^2 + 16x + 6$ has exactly one rational root. Find it.

Task card 24 The Rational Root Theorem

According to the Rational Root Theorem, could $\frac{5}{2}$ be a root of $f(x) = 5x^3 - 3x^2 + 4x - 4$? 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

Grade 11 · Medium

The answers online

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