

Name: _____

Date: _____ Per. _____

Rational Roots Theorem - Line Puzzle

Match the function on the left with all of its roots on the right with a ruler. If a line goes through a number and a letter, put the letter in the numbered box below and watch the answer to the riddle appear!

What vehicle does a kid ghost ride?



1) $f(x) = x^4 + x^3 - 2x^2 + 4x - 24$	◆	2	◆	-1 (mult 2), -3
2) $f(x) = x^3 - 2x^2 - x + 2$	◆		◆	1 (mult 2), -3
3) $f(x) = x^3 + x^2 - 5x + 3$	◆	7	◆	2, -3, $\pm 2i$
4) $f(x) = x^3 - 5x^2 - x + 5$	◆	5	◆	1, -1, -3
5) $f(x) = x^3 - 7x^2 + 11x - 5$	◆	3	◆	1, -1, 2
6) $f(x) = x^3 + 3x^2 - 3x - 3$	◆	A	◆	1, -1, 5
7) $f(x) = x^3 + 5x^2 + 7x + 3$	◆	E	◆	4, $2 \pm \sqrt{3}$
8) $f(x) = x^3 + x^2 - 3x - 3$	◆	E	◆	-1, $\pm \sqrt{3}$
9) $f(x) = x^3 - 8x^2 + 17x - 4$	◆	6	◆	1 (mult 2), -3
10) $f(x) = x^4 + 5x^3 - x^2 - 5x$	◆	4	◆	1 (mult 2), 2
11) $f(x) = x^3 - 4x^2 + 5x - 2$	◆	L	◆	2, $1 \pm 3i$
12) $f(x) = x^3 - 4x^2 + 14x - 20$	◆	8	◆	0, 1, -1, -5

1	2	3	4	5	6	7	8	9	10
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