



## Rational Root Theorem - Leading Coefficient (In Order)

$$1 f(x) = 5x^4 + 30x^3 + 35x^2 - 30x - 40$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
35	5	-30	30

$$2 f(x) = 2x^4 - 6x^3 - 28x^2 + 96x - 64$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
2	-28	-6	96

3 Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

$$f(x) = 3x^3 - 15x^2 + 9x + 27$$

A	B	C	D
27	-15	9	3

$$4 f(x) = 5x^3 + 35x^2 + 70x + 40$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
35	40	5	70

$$5 f(x) = 5x^4 - 35x^3 + 85x^2 - 85x + 30$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
5	-85	-35	85

$$6 f(x) = 2x^3 - 14x^2 + 28x - 16$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
28	-14	-16	2

$$7 f(x) = 4x^4 - 12x^3 - 32x^2 + 48x + 64$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
-32	-12	4	48

$$8 f(x) = 3x^4 - 3x^3 - 18x^2 + 12x + 24$$

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

A	B	C	D
12	-3	-18	3