

POLINOMIAL DIVISION USING SYNTHETIC METHOD

Instructions: Complete all the squares, the green ones are for coefficients and constants, the purple ones are for variables and the red ones are to write the symbols + or -. If you need to write a fraction you can use / (example: 3/5)

Watch the video and then divide using the synthetic method:

https://www.youtube.com/watch?v=x2NgrfaF_Jg

a) $(2x^3 - x^2 + 3) : (x + 1)$

Quotient: $Q(x) =$ ²

Remainder: $R(x) =$

b) $(x^4 - 8x^2 - 9) : (x - 2) =$

Quotient: $Q(x) =$ ³ ²

Remainder: $R(x) =$

c) $(x^3 - 7x - 6) : (x - 3) =$

Quotient: $Q(x) =$ ²

Remainder: $R(x) =$

d) $(x^3 - 7x - 6) : (x + 1) =$

Quotient: $Q(x) =$ ²

Remainder: $R(x) =$

e) $(x^4 - 3x^3 + 5x - 8) : (x + 2) =$

Quotient: $Q(x) =$

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 Remainder: $R(x) =$

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f) $\left(\frac{3}{5}x^4 - \frac{8}{5}x^3 + \frac{3}{2}x^2 - \frac{3}{2}x + 1\right) : (x - 1)$

Quotient: $Q(x) =$

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 Remainder: $R(x) =$

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g) $(2x^3 - 11x^2 + 18x - 24) : (x - 4) =$

Quotient: $Q(x) =$

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 Remainder: $R(x) =$

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h) $(x^4 - 5x^3 + 5x^2 + x - 6) : (x + 2) =$

A 3x5 grid of boxes. A blue arrow points down from the top-left box to the bottom-left box.

Quotient: $Q(x) =$ 

Remainder: $R(x) =$