Factorable Functions With a Degree ≥ 3

Practice

Find Roots and Sketch:

1) $(x+5)(x-2)(3x+1) = f(x)$

2) $p(x) = x^3 + 5x^2 - 24x$

3) $m(x) = x^2(x+2)(x-4)^2$

4) $f(x) = 5x^3 - 6x^2 - 28x - 2$

What to do when there is no GCF?

Check to see if something is a factor

For example:

Is $(x+2)$ a factor of $5x^3 - 6x^2 - 28x - 2$?

Use a process called Synthetic Division:

Practice:

1) Is $(x-2)$ a factor of $x^3 - 3x^2 + 4x - 4$?

2) Is $(x+1)$ a factor of $x^3 + 2x^2 - x + 6$?

3) Is 4 a root of $2x^3 - 6x^2 - 9x + 4$?

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