Factorizations of a Gazillion Fairly Easy Polynomials

Use these to assist you in creating examples, worksheets and tests. Throw darts, blindly drop your pencil or just tape it to the wall and use the first one your eyes go to. Enjoy not having to factor them every time!

$x^3-x = x(x+1)(x-1)$	$x^2-2x+1 = (x-1)(x-1)$	$x^2+2x+1 = (x+1)(x+1)$	$x^2-1 = (x+1)(x-1)$	$x^2-1 = (x-1)(x+1)$
$x^3-4x = x(x+2)(x-2)$	$x^2-3x+2 = (x-1)(x-2)$	$x^2+3x+2 = (x+1)(x+2)$	$x^2-x-2 = (x+1)(x-2)$	$x^2+x-2 = (x-1)(x+2)$
$x^3-9x = x(x+3)(x-3)$	$x^2-4x+3 = (x-1)(x-3)$	$x^2+4x+3 = (x+1)(x+3)$	$x^2-2x-3 = (x+1)(x-3)$	$x^2+2x-3 = (x-1)(x+3)$
$x^3-16x = x(x+4)(x-4)$	$x^2-5x+4 = (x-1)(x-4)$	$x^2+5x+4 = (x+1)(x+4)$	$x^2-3x-4 = (x+1)(x-4)$	$x^2+3x-4 = (x-1)(x+4)$
$x^3-25x = x(x+5)(x-5)$	$x^2-6x+5 = (x-1)(x-5)$	$x^2+6x+5 = (x+1)(x+5)$	$x^2-4x-5 = (x+1)(x-5)$	$x^2+4x-5 = (x-1)(x+5)$
$x^3-36x = x(x+6)(x-6)$	$x^2-7x+6 = (x-1)(x-6)$	$x^2+7x+6 = (x+1)(x+6)$	$x^2-5x-6 = (x+1)(x-6)$	$x^2+5x-6 = (x-1)(x+6)$
$x^3-49x = x(x+7)(x-7)$	$x^2-8x+7 = (x-1)(x-7)$	$x^2+8x+7 = (x+1)(x+7)$	$x^2-6x-7 = (x+1)(x-7)$	$x^2+6x-7 = (x-1)(x+7)$
$x^3-64x = x(x+8)(x-8)$	$x^2-9x+8 = (x-1)(x-8)$	$x^2+9x+8 = (x+1)(x+8)$	$x^2-7x-8 = (x+1)(x-8)$	$x^2+7x-8 = (x-1)(x+8)$
$x^3-81x = x(x+9)(x-9)$	$x^2-10x+9 = (x-1)(x-9)$	$x^2+10x+9 = (x+1)(x+9)$	$x^2-8x-9 = (x+1)(x-9)$	$x^2+8x-9 = (x-1)(x+9)$
$2x^3-2x = 2x(x+1)(x-1)$	$x^2-3x+2 = (x-2)(x-1)$	$x^2+3x+2 = (x+2)(x+1)$	$x^2+x-2 = (x+2)(x-1)$	$x^2-x-2 = (x-2)(x+1)$
$2x^3-8x = 2x(x+2)(x-2)$	$x^2-4x+4 = (x-2)(x-2)$	$x^2+4x+4 = (x+2)(x+2)$	$x^2-4 = (x+2)(x-2)$	$x^2-4 = (x-2)(x+2)$
$2x^3-18x = 2x(x+3)(x-3)$	$x^2-5x+6 = (x-2)(x-3)$	$x^2+5x+6 = (x+2)(x+3)$	$x^2-x-6 = (x+2)(x-3)$	$x^2+x-6 = (x-2)(x+3)$
$2x^3-32x = 2x(x+4)(x-4)$	$x^2-6x+8 = (x-2)(x-4)$	$x^2+6x+8 = (x+2)(x+4)$	$x^2-2x-8 = (x+2)(x-4)$	$x^2+2x-8 = (x-2)(x+4)$
$2x^3-50x = 2x(x+5)(x-5)$	$x^2-7x+10 = (x-2)(x-5)$	$x^2+7x+10 = (x+2)(x+5)$	$x^2-3x-10 = (x+2)(x-5)$	$x^2+3x-10 = (x-2)(x+5)$
$2x^3-72x = 2x(x+6)(x-6)$	$x^2-8x+12 = (x-2)(x-6)$	$x^2+8x+12 = (x+2)(x+6)$	$x^2-4x-12 = (x+2)(x-6)$	$x^2+4x-12 = (x-2)(x+6)$
$2x^3-98x = 2x(x+7)(x-7)$	$x^2-9x+14 = (x-2)(x-7)$	$x^2+9x+14 = (x+2)(x+7)$	$x^2-5x-14 = (x+2)(x-7)$	$x^2+5x-14 = (x-2)(x+7)$
$2x^3-128x = 2x(x+8)(x-8)$	$x^2-10x+16 = (x-2)(x-8)$	$x^2+10x+16 = (x+2)(x+8)$	$x^2-6x-16 = (x+2)(x-8)$	$x^2+6x-16 = (x-2)(x+8)$
$2x^3-162x = 2x(x+9)(x-9)$	$x^2-11x+18 = (x-2)(x-9)$	$x^2+11x+18 = (x+2)(x+9)$	$x^2-7x-18 = (x+2)(x-9)$	$x^2+7x-18 = (x-2)(x+9)$
$3x^3-3x = 3x(x+1)(x-1)$	$x^2-4x+3 = (x-3)(x-1)$	$x^2+4x+3 = (x+3)(x+1)$	$x^2+2x-3 = (x+3)(x-1)$	$x^2-2x-3 = (x-3)(x+1)$
$3x^3-12x = 3x(x+2)(x-2)$	$x^2-5x+6 = (x-3)(x-2)$	$x^2+5x+6 = (x+3)(x+2)$	$x^2+x-6 = (x+3)(x-2)$	$x^2-x-6 = (x-3)(x+2)$
$3x^3-27x = 3x(x+3)(x-3)$	$x^2-6x+9 = (x-3)(x-3)$	$x^2+6x+9 = (x+3)(x+3)$	$x^2-9 = (x+3)(x-3)$	$x^2-9 = (x-3)(x+3)$
$3x^3-48x = 3x(x+4)(x-4)$	$x^2-7x+12 = (x-3)(x-4)$	$x^2+7x+12 = (x+3)(x+4)$	$x^2-x-12 = (x+3)(x-4)$	$x^2+x-12 = (x-3)(x+4)$
$3x^3-75x = 3x(x+5)(x-5)$	$x^2-8x+15 = (x-3)(x-5)$	$x^2+8x+15 = (x+3)(x+5)$	$x^2-2x-15 = (x+3)(x-5)$	$x^2+2x-15 = (x-3)(x+5)$
$3x^3-108x = 3x(x+6)(x-6)$	$x^2-9x+18 = (x-3)(x-6)$	$x^2+9x+18 = (x+3)(x+6)$	$x^2-3x-18 = (x+3)(x-6)$	$x^2+3x-18 = (x-3)(x+6)$
$3x^3-147x = 3x(x+7)(x-7)$	$x^2-10x+21 = (x-3)(x-7)$	$x^2+10x+21 = (x+3)(x+7)$	$x^2-4x-21 = (x+3)(x-7)$	$x^2+4x-21 = (x-3)(x+7)$
$3x^3-192x = 3x(x+8)(x-8)$	$x^2-11x+24 = (x-3)(x-8)$	$x^2+11x+24 = (x+3)(x+8)$	$x^2-5x-24 = (x+3)(x-8)$	$x^2+5x-24 = (x-3)(x+8)$
$3x^3-243x = 3x(x+9)(x-9)$	$x^2-12x+27 = (x-3)(x-9)$	$x^2+12x+27 = (x+3)(x+9)$	$x^2-6x-27 = (x+3)(x-9)$	$x^2+6x-27 = (x-3)(x+9)$
$4x^3-4x = 4x(x+1)(x-1)$	$x^2-5x+4 = (x-4)(x-1)$	$x^2+5x+4 = (x+4)(x+1)$	$x^2+3x-4 = (x+4)(x-1)$	$x^2-3x-4 = (x-4)(x+1)$
$4x^3-16x = 4x(x+2)(x-2)$	$x^2-6x+8 = (x-4)(x-2)$	$x^2+6x+8 = (x+4)(x+2)$	$x^2+2x-8 = (x+4)(x-2)$	$x^2-2x-8 = (x-4)(x+2)$
$4x^3-36x = 4x(x+3)(x-3)$	$x^2-7x+12 = (x-4)(x-3)$	$x^2+7x+12 = (x+4)(x+3)$	$x^2+x-12 = (x+4)(x-3)$	$x^2-x-12 = (x-4)(x+3)$
$4x^3-64x = 4x(x+4)(x-4)$	$x^2-8x+16 = (x-4)(x-4)$	$x^2+8x+16 = (x+4)(x+4)$	$x^2-16 = (x+4)(x-4)$	$x^2-16 = (x-4)(x+4)$
$4x^3-100x = 4x(x+5)(x-5)$	$x^2-9x+20 = (x-4)(x-5)$	$x^2+9x+20 = (x+4)(x+5)$	$x^2-x-20 = (x+4)(x-5)$	$x^2+x-20 = (x-4)(x+5)$
$4x^3-144x = 4x(x+6)(x-6)$	$x^2-10x+24 = (x-4)(x-6)$	$x^2+10x+24 = (x+4)(x+6)$	$x^2-2x-24 = (x+4)(x-6)$	$x^2+2x-24 = (x-4)(x+6)$
$4x^3-196x = 4x(x+7)(x-7)$	$x^2-11x+28 = (x-4)(x-7)$	$x^2+11x+28 = (x+4)(x+7)$	$x^2-3x-28 = (x+4)(x-7)$	$x^2+3x-28 = (x-4)(x+7)$
$4x^3-256x = 4x(x+8)(x-8)$	$x^2-12x+32 = (x-4)(x-8)$	$x^2+12x+32 = (x+4)(x+8)$	$x^2-4x-32 = (x+4)(x-8)$	$x^2+4x-32 = (x-4)(x+8)$
$4x^3-324x = 4x(x+9)(x-9)$	$x^2-13x+36 = (x-4)(x-9)$	$x^2+13x+36 = (x+4)(x+9)$	$x^2-5x-36 = (x+4)(x-9)$	$x^2+5x-36 = (x-4)(x+9)$
$5x^3-5x = 5x(x+1)(x-1)$	$x^2-6x+5 = (x-5)(x-1)$	$x^2+6x+5 = (x+5)(x+1)$	$x^2+4x-5 = (x+5)(x-1)$	$x^2-4x-5 = (x-5)(x+1)$
$5x^3-20x = 5x(x+2)(x-2)$	$x^2-7x+10 = (x-5)(x-2)$	$x^2+7x+10 = (x+5)(x+2)$	$x^2+3x-10 = (x+5)(x-2)$	$x^2-3x-10 = (x-5)(x+2)$
$5x^3-45x = 5x(x+3)(x-3)$	$x^2-8x+15 = (x-5)(x-3)$	$x^2+8x+15 = (x+5)(x+3)$	$x^2+2x-15 = (x+5)(x-3)$	$x^2-2x-15 = (x-5)(x+3)$
$5x^3-80x = 5x(x+4)(x-4)$	$x^2-9x+20 = (x-5)(x-4)$	$x^2+9x+20 = (x+5)(x+4)$	$x^2+x-20 = (x+5)(x-4)$	$x^2-x-20 = (x-5)(x+4)$
$5x^3-125x = 5x(x+5)(x-5)$	$x^2-10x+25 = (x-5)(x-5)$	$x^2+10x+25 = (x+5)(x+5)$	$x^2-25 = (x+5)(x-5)$	$x^2-25 = (x-5)(x+5)$
$5x^3-180x = 5x(x+6)(x-6)$	$x^2-11x+30 = (x-5)(x-6)$	$x^2+11x+30 = (x+5)(x+6)$	$x^2-x-30 = (x+5)(x-6)$	$x^2+x-30 = (x-5)(x+6)$
$5x^3-245x = 5x(x+7)(x-7)$	$x^2-12x+35 = (x-5)(x-7)$	$x^2+12x+35 = (x+5)(x+7)$	$x^2-2x-35 = (x+5)(x-7)$	$x^2+2x-35 = (x-5)(x+7)$
$5x^3-320x = 5x(x+8)(x-8)$	$x^2-13x+40 = (x-5)(x-8)$	$x^2+13x+40 = (x+5)(x+8)$	$x^2-3x-40 = (x+5)(x-8)$	$x^2+3x-40 = (x-5)(x+8)$

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$5x^3-405x = 5x(x+9)(x-9)$	$x^2-14x+45 = (x-5)(x-9)$	$x^2+14x+45 = (x+5)(x+9)$	$x^2-4x-45 = (x+5)(x-9)$	$x^2+4x-45 = (x-5)(x+9)$
$6x^3-6x = 6x(x+1)(x-1)$	$x^2-7x+6 = (x-6)(x-1)$	$x^2+7x+6 = (x+6)(x+1)$	$x^2+5x-6 = (x+6)(x-1)$	$x^2-5x-6 = (x-6)(x+1)$
$6x^3-24x = 6x(x+2)(x-2)$	$x^2-8x+12 = (x-6)(x-2)$	$x^2+8x+12 = (x+6)(x+2)$	$x^2+4x-12 = (x+6)(x-2)$	$x^2-4x-12 = (x-6)(x+2)$
$6x^3-54x = 6x(x+3)(x-3)$	$x^2-9x+18 = (x-6)(x-3)$	$x^2+9x+18 = (x+6)(x+3)$	$x^2+3x-18 = (x+6)(x-3)$	$x^2-3x-18 = (x-6)(x+3)$
$6x^3-96x = 6x(x+4)(x-4)$	$x^2-10x+24 = (x-6)(x-4)$	$x^2+10x+24 = (x+6)(x+4)$	$x^2+2x-24 = (x+6)(x-4)$	$x^2-2x-24 = (x-6)(x+4)$
$6x^3-150x = 6x(x+5)(x-5)$	$x^2-11x+30 = (x-6)(x-5)$	$x^2+11x+30 = (x+6)(x+5)$	$x^2+x-30 = (x+6)(x-5)$	$x^2-x-30 = (x-6)(x+5)$
$6x^3-216x = 6x(x+6)(x-6)$	$x^2-12x+36 = (x-6)(x-6)$	$x^2+12x+36 = (x+6)(x+6)$	$x^2-36 = (x+6)(x-6)$	$x^2-36 = (x-6)(x+6)$
$6x^3-294x = 6x(x+7)(x-7)$	$x^2-13x+42 = (x-6)(x-7)$	$x^2+13x+42 = (x+6)(x+7)$	$x^2-x-42 = (x+6)(x-7)$	$x^2+x-42 = (x-6)(x+7)$
$6x^3-384x = 6x(x+8)(x-8)$	$x^2-14x+48 = (x-6)(x-8)$	$x^2+14x+48 = (x+6)(x+8)$	$x^2-2x-48 = (x+6)(x-8)$	$x^2+2x-48 = (x-6)(x+8)$
$6x^3-486x = 6x(x+9)(x-9)$	$x^2-15x+54 = (x-6)(x-9)$	$x^2+15x+54 = (x+6)(x+9)$	$x^2-3x-54 = (x+6)(x-9)$	$x^2+3x-54 = (x-6)(x+9)$
$7x^3-7x = 7x(x+1)(x-1)$	$x^2-8x+7 = (x-7)(x-1)$	$x^2+8x+7 = (x+7)(x+1)$	$x^2+6x-7 = (x+7)(x-1)$	$x^2-6x-7 = (x-7)(x+1)$
$7x^3-28x = 7x(x+2)(x-2)$	$x^2-9x+14 = (x-7)(x-2)$	$x^2+9x+14 = (x+7)(x+2)$	$x^2+5x-14 = (x+7)(x-2)$	$x^2-5x-14 = (x-7)(x+2)$
$7x^3-63x = 7x(x+3)(x-3)$	$x^2-10x+21 = (x-7)(x-3)$	$x^2+10x+21 = (x+7)(x+3)$	$x^2+4x-21 = (x+7)(x-3)$	$x^2-4x-21 = (x-7)(x+3)$
$7x^3-112x = 7x(x+4)(x-4)$	$x^2-11x+28 = (x-7)(x-4)$	$x^2+11x+28 = (x+7)(x+4)$	$x^2+3x-28 = (x+7)(x-4)$	$x^2-3x-28 = (x-7)(x+4)$
$7x^3-175x = 7x(x+5)(x-5)$	$x^2-12x+35 = (x-7)(x-5)$	$x^2+12x+35 = (x+7)(x+5)$	$x^2+2x-35 = (x+7)(x-5)$	$x^2-2x-35 = (x-7)(x+5)$
$7x^3-252x = 7x(x+6)(x-6)$	$x^2-13x+42 = (x-7)(x-6)$	$x^2+13x+42 = (x+7)(x+6)$	$x^2+x-42 = (x+7)(x-6)$	$x^2-x-42 = (x-7)(x+6)$
$7x^3-343x = 7x(x+7)(x-7)$	$x^2-14x+49 = (x-7)(x-7)$	$x^2+14x+49 = (x+7)(x+7)$	$x^2-49 = (x+7)(x-7)$	$x^2-49 = (x-7)(x+7)$
$7x^3-448x = 7x(x+8)(x-8)$	$x^2-15x+56 = (x-7)(x-8)$	$x^2+15x+56 = (x+7)(x+8)$	$x^2-x-56 = (x+7)(x-8)$	$x^2+x-56 = (x-7)(x+8)$
$7x^3-567x = 7x(x+9)(x-9)$	$x^2-16x+63 = (x-7)(x-9)$	$x^2+16x+63 = (x+7)(x+9)$	$x^2-2x-63 = (x+7)(x-9)$	$x^2+2x-63 = (x-7)(x+9)$
$8x^3-8x = 8x(x+1)(x-1)$	$x^2-9x+8 = (x-8)(x-1)$	$x^2+9x+8 = (x+8)(x+1)$	$x^2+7x-8 = (x+8)(x-1)$	$x^2-7x-8 = (x-8)(x+1)$
$8x^3-32x = 8x(x+2)(x-2)$	$x^2-10x+16 = (x-8)(x-2)$	$x^2+10x+16 = (x+8)(x+2)$	$x^2+6x-16 = (x+8)(x-2)$	$x^2-6x-16 = (x-8)(x+2)$
$8x^3-72x = 8x(x+3)(x-3)$	$x^2-11x+24 = (x-8)(x-3)$	$x^2+11x+24 = (x+8)(x+3)$	$x^2+5x-24 = (x+8)(x-3)$	$x^2-5x-24 = (x-8)(x+3)$
$8x^3-128x = 8x(x+4)(x-4)$	$x^2-12x+32 = (x-8)(x-4)$	$x^2+12x+32 = (x+8)(x+4)$	$x^2+4x-32 = (x+8)(x-4)$	$x^2-4x-32 = (x-8)(x+4)$
$8x^3-200x = 8x(x+5)(x-5)$	$x^2-13x+40 = (x-8)(x-5)$	$x^2+13x+40 = (x+8)(x+5)$	$x^2+3x-40 = (x+8)(x-5)$	$x^2-3x-40 = (x-8)(x+5)$
$8x^3-288x = 8x(x+6)(x-6)$	$x^2-14x+48 = (x-8)(x-6)$	$x^2+14x+48 = (x+8)(x+6)$	$x^2+2x-48 = (x+8)(x-6)$	$x^2-2x-48 = (x-8)(x+6)$
$8x^3-392x = 8x(x+7)(x-7)$	$x^2-15x+56 = (x-8)(x-7)$	$x^2+15x+56 = (x+8)(x+7)$	$x^2+x-56 = (x+8)(x-7)$	$x^2-x-56 = (x-8)(x+7)$
$8x^3-512x = 8x(x+8)(x-8)$	$x^2-16x+64 = (x-8)(x-8)$	$x^2+16x+64 = (x+8)(x+8)$	$x^2-64 = (x+8)(x-8)$	$x^2-64 = (x-8)(x+8)$
$8x^3-648x = 8x(x+9)(x-9)$	$x^2-17x+72 = (x-8)(x-9)$	$x^2+17x+72 = (x+8)(x+9)$	$x^2-x-72 = (x+8)(x-9)$	$x^2+x-72 = (x-8)(x+9)$
$9x^3-9x = 9x(x+1)(x-1)$	$x^2-10x+9 = (x-9)(x-1)$	$x^2+10x+9 = (x+9)(x+1)$	$x^2+8x-9 = (x+9)(x-1)$	$x^2-8x-9 = (x-9)(x+1)$
$9x^3-36x = 9x(x+2)(x-2)$	$x^2-11x+18 = (x-9)(x-2)$	$x^2+11x+18 = (x+9)(x+2)$	$x^2+7x-18 = (x+9)(x-2)$	$x^2-7x-18 = (x-9)(x+2)$
$9x^3-81x = 9x(x+3)(x-3)$	$x^2-12x+27 = (x-9)(x-3)$	$x^2+12x+27 = (x+9)(x+3)$	$x^2+6x-27 = (x+9)(x-3)$	$x^2-6x-27 = (x-9)(x+3)$
$9x^3-144x = 9x(x+4)(x-4)$	$x^2-13x+36 = (x-9)(x-4)$	$x^2+13x+36 = (x+9)(x+4)$	$x^2+5x-36 = (x+9)(x-4)$	$x^2-5x-36 = (x-9)(x+4)$
$9x^3-225x = 9x(x+5)(x-5)$	$x^2-14x+45 = (x-9)(x-5)$	$x^2+14x+45 = (x+9)(x+5)$	$x^2+4x-45 = (x+9)(x-5)$	$x^2-4x-45 = (x-9)(x+5)$
$9x^3-324x = 9x(x+6)(x-6)$	$x^2-15x+54 = (x-9)(x-6)$	$x^2+15x+54 = (x+9)(x+6)$	$x^2+3x-54 = (x+9)(x-6)$	$x^2-3x-54 = (x-9)(x+6)$
$9x^3-441x = 9x(x+7)(x-7)$	$x^2-16x+63 = (x-9)(x-7)$	$x^2+16x+63 = (x+9)(x+7)$	$x^2+2x-63 = (x+9)(x-7)$	$x^2-2x-63 = (x-9)(x+7)$
$9x^3-576x = 9x(x+8)(x-8)$	$x^2-17x+72 = (x-9)(x-8)$	$x^2+17x+72 = (x+9)(x+8)$	$x^2+x-72 = (x+9)(x-8)$	$x^2-x-72 = (x-9)(x+8)$
$9x^3-729x = 9x(x+9)(x-9)$	$x^2-18x+81 = (x-9)(x-9)$	$x^2+18x+81 = (x+9)(x+9)$	$x^2-81 = (x+9)(x-9)$	$x^2-81 = (x-9)(x+9)$

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