U2 D3 Practice KEY

Tuesday, January 19, 2021 10:31 PM

U2D3
Practice #1

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Write each polynomial in standard form. Then classify it by degree and by number of terms.

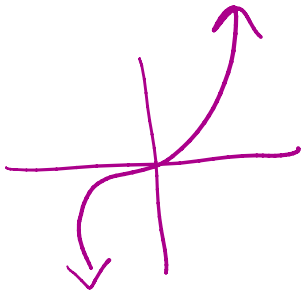
1. $4x^2 + x + 2$ $4x^2+x+2$ degree: 2 Quadratic, 3 terms (trinomial)
2. $6x^4 - 1$ $6x^4-1$ degree: 2 quartic, 2 terms (binomial)
3. $1 - 2s + 5s^4$ $5s^4-2s+1$ degree: 4 quartic, 3 terms (trinomial)
4. $x^2 + 3x - 4x^3$ $-4x^3+x^2+3x$ degree: 3 cubic, 3 terms (trinomial)
5. $x(x+5) - 5(x+5)$ $x^2+5x-5x-25$ x^2-25 degree: 2 quadratic, 2 terms (binomial)

Draw a *sketch* of the graph and describe the end behavior of each polynomial function.

1. $f(x) = x^3 + 10x^2 + 32x + 34$

$x \to -\infty \; f(x) \to -\infty$

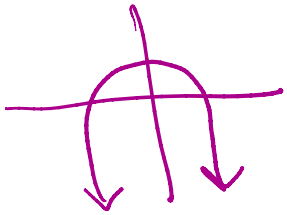
$x \to +\infty \; f(x) \to +\infty$



2. $f(x) = -x^2 - 8x - 15$

$x \to -\infty \; f(x) \to -\infty$

$x \to +\infty \; f(x) \to +\infty$



3. $f(x) = -x^4 + x^2 + 2$

$x \to -\infty \; f(x) \to -\infty$

$x \to +\infty \; f(x) \to$