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| **Content: Exploring Polynomials** | | | |
| Represents polynomials concretely and pictorially and writes a polynomial expression for a given concrete or pictorial representation  A white square with black text  Description automatically generated  “These algebra tiles represent the polynomial 3*x*2 + 4*x* ‒ 1.” | Identifies the different parts of a polynomial (variable, exponent, numerical coefficient, constant term)  “In the polynomial expression  3*x*2 + 4*x* ‒ 1, 3 and 4 are numerical coefficients, *x* is the variable, the exponents are 2 and 1, and the constant term is ‒1.” | Identifies type of polynomial based on number of terms and names the degree of the polynomial  “The polynomial expression  3*x*2 + 4*x* ‒ 1 is a trinomial because there are 3 terms. The polynomial is of degree 2 because the greatest exponent of a term is 2.” | Compares polynomials for equivalency  “3*x*2 + 4*x* ‒ 1 and 4*x* ‒ 1 + 3*x*2 are equivalent polynomials because they can be represented with the same algebra tiles and their graphs are the same.” |
| **Observations/Documentation** | | | |
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| **Competency: Representing Polynomials** | | | |
| Represents polynomial expressions concretely or pictorially using  algebra tiles  “I used these tiles to represent  4*x* ‒ 1.” | Records the polynomial expression represented by a set of algebra tiles      “I removed zero pairs, then wrote the expression *x*2 + *x* − 2.” | Represents and simplifies polynomials concretely and pictorially, to identify equivalent polynomials    “If two polynomials can be represented by the same set of algebra tiles, then they are equivalent.” | Flexibly represents polynomials using different models to demonstrate equivalency (e.g., table of values, algebra tiles, graphing)  “The polynomials *x*2 − 2*x* + 3 and  − 2*x* + *x*2 + 3 have the same graph, so the polynomials are equivalent.” |
| **Observations/Documentation** | | | |
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