NAME: $\qquad$
DATE: $\qquad$

## Opposite Polynomials

1. In ten words or less, what is an opposite polynomial?
2. How do you "find" an opposite polynomial?
3. Have you seen opposite terms before? If yes, when/where?
4. Write an opposite for each polynomial below.
a. $3 x$
e. $3 x-1$
b. $-2 x^{2}$

$$
\text { f. } 3 x y+5 x-2 y
$$

c. $4 y+1$
g. $-6 x^{3}-3 x^{2}+2 x y-5$
d. $-3 x+1$
5. Find the error in each of the following opposites. Write the correct opposite. Include the reason or cause of the original error.

| Polynomial | Opposite | Correct Opposite | Reason |
| :--- | :--- | :--- | :--- |
| $-3 x+5 y-2$ | $3 x+5 y-2$ |  |  |
| $2 x y+7 x+7 y$ | $-2 x y-14 x y$ |  |  |
| $-5 p^{4}+9 p^{3}-8 p^{2}-2$ | $5 p^{4}-9 p^{3}-8 p^{2}+2$ |  |  |

6. If you were physically using alge-tiles, how would you represent or create an opposite polynomial?
7. Write an example of three different polynomials. One must be a binomial a one must be a trinomial. Find the opposite. Challenge a classmate to find the opposites of your polynomials.
