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

## Dividing a Monomial by a Monomial

1. In your own words, describe how to divide a monomial by a monomial using alge-tiles.
2. In your own words, describe how to divide a monomial by a monomial algebraically.
3. Use the following alge-tile representation for the questions below.

a. Write out the division expression.
b. Draw the alge-tiles to represent the missing quotient.
c. Algebraically, give the expression for the missing quotient.
4. Write out the division expression and find the quotient for each of the following.

5. Divide.
a. $\frac{3 x}{x}$
f. $\frac{9 m^{3}}{3 m}$
b. $\frac{4 x}{2}$
g. $\frac{25 t^{3}}{15 t^{3}}$
c. $\frac{8 y^{2}}{-4 y}$
h. $\frac{18 c^{2} d^{3}}{9 c d^{2}}$
d. $\frac{-6 p^{2}}{2 p}$
e. $\frac{-256 n^{2}}{-16 n}$
i. $\frac{21 a^{5} b^{4} c^{3}}{7 a^{2} b^{2} c^{2}}$
6. What happens when we see this?
a. $\frac{s^{4} t^{2}}{3 s^{4} t^{2}}$
b. $\frac{s^{4} t^{2}}{3 s^{5} t^{3}}$
7. When you divide a monomial by a monomial, how many terms will you have in your quotient?
8. Write down two monomials below. Monomial 1 should divide Monomial 2 evenly.
a. Monomial 1: $\qquad$
b. Monomial 2: $\qquad$
9. Divide Monomial 2 by Monomial 1.
10. Divide Monomial 1 by Monomial 2.
11. Find a classmate. Divide your Monomial 1 by their Monomial 1.
