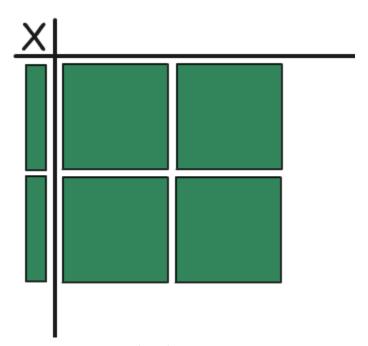
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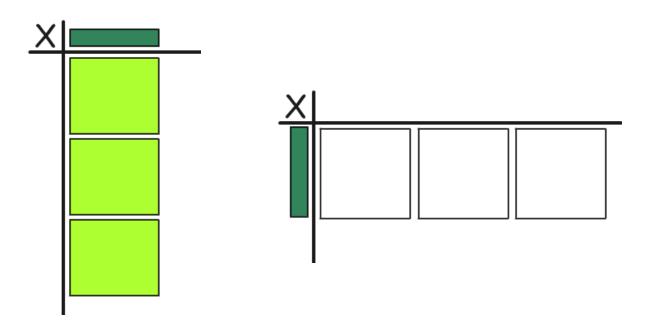
## **Dividing a Monomial by a Monomial**

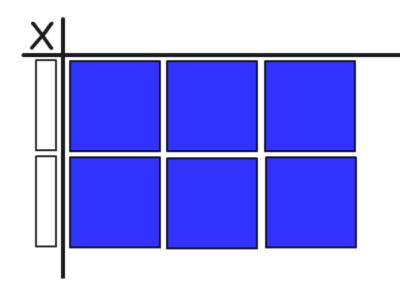
- 1. In your own words, describe how to divide a monomial by a monomial using alge-tiles.
- 2. In your own words, describe how to divide a monomial by a monomial algebraically.
- 3. Use the following alge-tile representation for the questions below.



- 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. 
$$\frac{3x}{x}$$

f. 
$$\frac{9m^3}{3m}$$

b. 
$$\frac{4x}{2}$$

g. 
$$\frac{25t^3}{15t^3}$$

c. 
$$\frac{8y^2}{-4y}$$

h. 
$$\frac{18c^2d^3}{9cd^2}$$

$$d. \ \frac{-6p^2}{2p}$$

i. 
$$\frac{21a^5b^4c^3}{7a^2b^2c^2}$$

e. 
$$\frac{-256n^2}{-16n}$$

6. What happens when we see this?

a. 
$$\frac{s^4t^2}{3s^4t^2}$$

b. 
$$\frac{s^4t^2}{3s^5t^3}$$

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:
b. Monomial 2:
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.