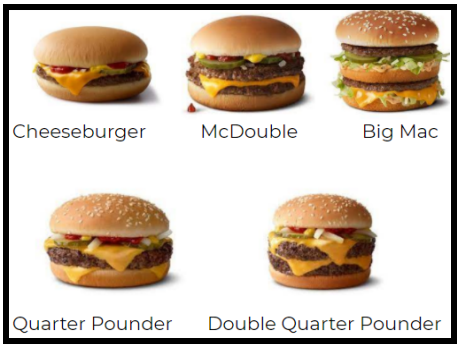
Lesson B2: Getting Some Food, Fast

1. Gabriel is going to try a new grab-and-go breakfast place called Peg's Eggs with a limited Value Menu (shown above). Gabriel has $10 to spend (before tax).

$1	$2	$3
Hash browns	Egg & Cheese Sandwich	Egg, Bacon, & Cheese Sandwich

What are possible orders Gabriel could make using only the $1, $2, and $3 menu items? Represent your order combinations by writing expressions using the variables x, y, and z and coefficients. Then explain in words what items are included in your order suggestions for Gabriel and what the variables represent.

2. Alexis's sibling was telling her about a drive-thru order she completed. Write an expression she could use to find the total amount of ounces of beef her sibling used to complete the order below.



- 2 McDoubles
- 1 Big Mac
- 2 Quarter Pounders with Cheese

3. Alexis and her sibling used different strategies to calculate the total ounces of beef used in the order.

Alexis's Strategy
2(P+P) + 2(P) + 2(Q)
2(1.6 + 1.6) + 2(1.6) + 2(4)
6.4 + 3.2 + 8
17.6 total ounces of beef

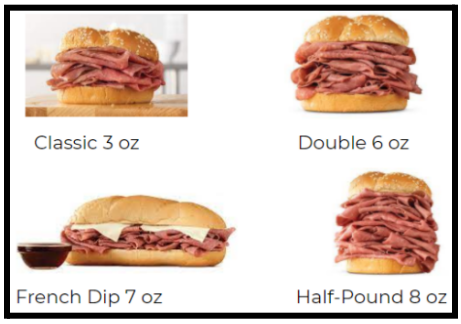
Sibling's Strategy
6P + 2R
6(1.6) + 2(4)
9.6 + 8
17.6 total ounces of beef

What do you notice about their expressions and strategies?

Did you do the same thing or something different?

4. They wrote an example expression for the total amount of ounces of sliced beef needed to complete an example order at Arby's. Using their expression, they found the total ounces of beef needed to complete the order was 25 ounces.

   If they used the expression 3c + 2h, what do you think the example order was? Explain your thinking.



5. Using the weights from Alexis's and Sam's research, write your own expression to represent a drive thru order from Arby's and find the total amount of ounces of roast beef needed to make the order. Then show the expression and total to your partner to see if they can figure out what the order was.

Summary

6. How do we know which terms of expressions can be combined?

   Be sure to include mathematical vocabulary (coefficient, variable, terms, constants) and you are welcome to include examples as needed in your response.