Worksheet 3: Simplifying Expressions (Writing equations in multiple forms)

Nala needs 8 bags of bolts and 3 bags of washers. Wally needs 1 bag of bolts and 6 bags of washers. Simplify this expression.

$$8b + 3w + 1b + 6w$$

Pierre needs 1 bag of washers and 3 bags of brackets. Adara needs 4 bags of washers and 5 bags of brackets. Simplify this expression.

$$1w + 3b + 4w + 5b$$

Worshsheet 3: Generalization

Hans needs 4 bags of washers and 2 bags of brackets. Fredericka needs 2 bags of washers and 6 bags of brackets. Write the expression that represents this problem. Use the letter w to represent the number of washers in a bag and the letter b to represent the number of brackets in a bag.

Now simplify the expression.

Carlos works in an art supply store. The store sells charcoal pencils in packets. They also sell packets of paintbrushes. Carlos doesn't know how many pencils or paintbrushes are in each packet, but he knows it's the same amount in each packet. Francis comes into the store and orders 3 packets of pencils and 4 packets of paintbrushes. Then, Karen comes in and orders 1 packet of pencils and 2 packets of paintbrushes. Use the letter c to represent the number of pencils in each packet and the letter d to represent the number of paintbrushes in each packet. Write an expression to represent the customers' orders.

Now simplify the expression.