**Multiplication and division problems for which to draw diagrams**

*For each of problems 1-3,* ***describe how a child would solve the problem by direct modeling.***

1. A pack has 8 pencils in it. How many packs would I need to buy to have 48 pencils?

2. A box has 4 muffins in it. How many muffins are in 6 boxes?

3. 4 children share 60 M&Ms. How many M&Ms does each child get?

*For each of problems 4-13, draw a* ***bar diagram*** *and* ***write an equation or equations*** *(multiplication or division* and *missing number multiplication)*

4. A pizza costs $9. How much do 4 pizzas cost?

5. Three pies cost $24. How much does one pie cost?

6. A box of cookies costs $3. How much do 5 boxes of cookies cost?

7. A toy robot walks 35 inches in 5 seconds. How far does it walk in 1 second?

8. A snail walks 3 inches in a minute. How far does it walk in 4 minutes?

9. A toy train goes 8 inches in 1 second. How long does it take for the train to go 40 inches?

10. John has 3 times as many red balloons as blue balloons. He has 12 red balloons. How many blue balloons does he have?

11. Sandra’s string has 4 times as many beads as Maude’s string. Maude’s string has 7 beads. How many beads does Sandra’s string have?

12. The bakery has 3 times as many donuts as bagels. There are 12 bagels. How many donuts are there?

13. The farmer has 4 times as many chickens as cows. There are 20 chickens. How many cows are there?