Name _____ Date _____

Ready® Mathematics

Solve the problems.

1 Which expression uses the greatest common factor and distributive property to write the sum $36 + 54$ as a product?

A $6(6 + 9)$

B $9(4 + 6)$

C $18(2 + 3)$

D $27(9 + 27)$

2 Dylan needs 2.5 liters of water for an experiment. He has 1.125 liters. How much more water does Dylan need?

Show your work.

Dylan needs _____ liters of water.

3 Drew has 6.75 bags of coffee. A full bag weighs 5.2 pounds. How many pounds of coffee does Drew have?

   A   11.77 pounds

   B   11.95 pounds

   C   31.5 pounds

   D   35.1 pounds

4 There are 32 boys and 36 girls in the sixth grade and each student must be assigned a homeroom. Each homeroom should have the same number of boys and the same number of girls.

Part A

What is the greatest possible number of sixth-grade homerooms?

Part B

How many boys and how many girls will be in each sixth-grade homeroom from Part A?

2

5 Darrin orders 24.5 square feet of granite countertop for his kitchen.

Part A

If he pays $428.75 for the granite, what is the cost per square foot?

Show your work.

The granite costs _____ per square foot.

Part B

Darrin also has to pay $62.50 per square foot for the countertop installation. How much will the installation cost?

Show your work.

The installation will cost _____.

Part C

If Darrin also pays $137.50 to have his old countertop removed, what is the total cost for Darrin to have the countertops in his kitchen replaced?

Show your work.

Darrin's total cost will be _____.

6 Ms. Larson has a package of 18 yellow pencils and a package of 24 green pencils. Tell whether each statement is *True* or *False*.

a. If she wants to make groups with the same number of yellow pencils and the same number of green pencils, then the greatest number of groups Ms. Larson can make is 6.   ☐ True   ☐ False

b. If she makes the greatest number of groups with the same number of yellow pencils and the same number of green pencils, then there will be 3 yellow pencils and 6 green pencils in each group.   ☐ True   ☐ False

c. She can use the product $6(3 + 4)$ to find the total number of pencils.   ☐ True   ☐ False

d. If she buys enough packages to have the same number of each type of pencil, she will have 48 yellow pencils and 48 green pencils.   ☐ True   ☐ False

7 Nadia mails 3 packages. The first weighs 12.329 pounds, the second weighs 10.45 pounds, and the third weighs 19.2 pounds. What is the total weight of the packages?

Show your work.

The total weight is _____ pounds.

4

8 Pilar spends $89.10 on blackberries. If the blackberries cost $4.95 per pound, how many pounds of blackberries did she buy?

   A 16

   B 18

   C 20

   D 22

9 A machine that bottles apple juice is set so that every 6th bottle gets a red label and every 9th bottle gets a blue cap.

Part A

What number bottle will be the first to get a red label and a blue cap?
Explain.

_____

_____

_____

Part B

The machine is reset so that every 10th bottle gets a special gold band around the label. What number bottle will be the first to get a red label, a blue cap, and a gold band? Explain.

_____

_____

_____

_____