

Name _____ Date _____

"Number System, Expressions / Equations, & Ratios / Proportions (Short Response) Review"

1. Nancy uses $3\frac{3}{4}$ pounds of white flour and $1\frac{5}{8}$ pounds of wheat flour for each batch of pasta. One week she uses a total of 86 pounds of flour.

Part A

Write an equation to solve for b , the number of batches of pasta that Nancy can make during the week.

Equation _____

Part B

How many batches of pasta does she make?

Answer _____

2. Maia and Rihana are stuffing bags for a charity. Rihana stuffed a total of 60 bags. This is 10 more than twice the number of bags that Maia stuffed.

Part A

Write an equation that can be used to find the number of bags, a , that Rihana stuffed.

Equation _____

Part B

How many envelopes did Rihana stuff?

Answer _____

3. Noah ordered Sweat Suits for the track team from two different Sweat Suit suppliers. One supplier charged \$16 for each Sweat Suit, as well as 5% for shipping. The other supplier charged \$18 for each Sweat Suit, plus 7% for shipping.

Part A

Noah ordered the same number of Sweat Suits from each supplier. Write two expressions to represent the shipping charges he paid to both suppliers. Use x to represent the number of Sweat Suits ordered.

Expressions _____

Expressions _____

Part B

The first supplier gave Noah a discount of 10% off of his order total. The second supplier gave him a discount of \$20 off of his order total. Write two equations to represent the total costs he paid to each supplier. Use x to represent the number of Sweat Suits ordered.

Equation _____

Equation _____

Part C

Noah ordered 15 Sweat Suits from each supplier. How much did he pay?

Answer _____

4. Amir had less than \$9 to spend when she went to the grocery store. She bought 1 pound of tomatoes and wanted to spend the rest of her money on potatoes. One pound of tomatoes costs \$2.40 and one pound of potatoes costs \$2.20.

Part A

Write an inequality to show how many pounds of potatoes, x , Amir can buy.

Inequality _____

Part B

Solve the inequality above to find how many pounds of potatoes Amir can buy.

Answer _____

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1. Tye's employer deducts 20% in payroll and state taxes from his base salary before writing his paycheck. Tye's monthly paycheck is \$1,600.

Part A

What is Tye's salary before the deductions for payroll and state taxes?

Answer _____

Part B

Tye put $\frac{1}{5}$ of his paycheck into a savings account each month. How much does he save each month?

Answer _____

Part C

Next week Tye's employer is changing its pay scale and Tye's base salary will decrease 8%. His employer will still deduct 20% for taxes. What will be his salary before deductions and how much will his paycheck be next month?

Answer _____

2. Leighanne is planning a school field trip to Valley Streams State Park. School policy requires a minimum of 2 adults as chaperones for every 9 students on the trip and allows a food budget of \$6 per person. Group pricing is \$4.50 per student and \$7.25 per adult. There is also a bus parking fee that is 4% of the total ticket price.

Part A

There are 171 students in the school. How much money does Leighanne need to budget for everyone's ticket and parking?

Answer _____

Part B

What is the total budget for tickets, parking, and food for all students and chaperones to go on the field trip?

Answer _____

3. The dimensions of a rectangle are length $(x + \frac{4}{5})$ and width (x)

Part A

Write an expression representing the perimeter of the rectangle

Expression _____

Part B

Explain how the expression $2(2x + \frac{4}{5})$ is equivalent to the perimeter of the rectangle

Part C

The perimeter of the rectangle is $7\frac{3}{5}$ units. What is the value of x ?

Answer _____