Simplify all answers and show your work!

1) 2 gal = ________ cups  
2) 32 inches = _______ yards  
3) 35.6 mm = ________ cm  

4) 3.98 m = _______ mm  
5) 5\frac{2}{3} yd = ________ ft.  
6) 365,000 mg = __________ kg  

7) 7 m 4 cm = __________ m  
8) 9 lbs 6 oz = __________ oz.  
9) 6 ft 4 in = _____________ in.  

10) Solve for x: \( \frac{7}{8} = \frac{16}{x} \)  
11) Solve for x: \( \frac{4}{3} \cdot \frac{2}{8} = \frac{x}{2} \)  
12) Solve for x: \( \frac{x}{3.6} = \frac{2.5}{3.2} \)  

13) A person weighs 105 pounds. How much does this person weigh in kilograms?  
(2.2 lbs \approx 1 kg.)  

14) How many 240 mL servings are in one full 2-Liter cola bottle?  

15) Steve has $543.67 in his checking account before writing checks for $13.65, $76.12, and $102.96. He then deposits $485.32 into his checking account. How much money is in his checking account after he writes the checks and makes the deposit?  

16) A particular type of lottery ticket lists the odds of winning as 1 : 4.2. How many winning lottery tickets would Sam expect to have if he bought 25 lottery tickets? (Round to the nearest whole ticket.)
17) Hector and Juanita bought a new car, made a down payment of $4000, and make additional monthly payments of $315.57 for the next 5 years. How much money will they have spent for the car once it is paid off?

18) Dave’s Honda Civic averages 300 miles on a 14-gallon tank of gas. If Dave runs out of gas and AAA brings him $\frac{1}{2}$ gallons of gas in a gas canister, determine how far he can go. Round to the nearest mile.

19) If 2.5 kg of cheese is to be divided equally among 5 pizzas, how many grams of cheese will each pizza get?

20) Willow needs 4 m 50 cm of red ribbon and 3 m 75 cm of black ribbon. If the ribbon costs $1.29 per meter and a total sales tax of $0.75, how much will the ribbon cost with sales tax?

21) In the UK, one liter of gasoline presently costs $2.00. In Augusta, GA, one gallon of gasoline presently costs $3.03. (1 gal $\approx$ 3.78 L)
a) How much would one gallon of gasoline cost in the UK? b) How much more expensive is gasoline per gallon in the UK as opposed to in Augusta?

22) A recipe that yields 4 servings calls for $\frac{5}{4}$ cups of flour. How many cups of flour would be needed for the recipe to yield 15 servings?

23) Which of the following is a better buy on Rice Krispies cereal? 9 oz. for $3.85 12 oz. for $4.85