Simplify all answers and show your work! Solutions having an answer only or where the work does not match up with the answer will be marked wrong. This is not a test of your ability to guess, nor is it a test of your ability to use a calculator.

1) Write \( \frac{5}{8} \) as a decimal. 
2) Simplify: \( 5.6 \div 3.5 \cdot 2.1 - 1.5^2 \)
3) Write the following in order from smallest to largest: 0.645, 0.655, 0.654, 0.664, 0.652

Solve for x:
4) \( \frac{11}{18} = \frac{15}{x} \) 
5) \( \frac{2.3}{0.8} = \frac{x}{7.2} \) 
6) \( \frac{2\frac{2}{3}}{8} = \frac{5\frac{1}{2}}{6} \)

7) Write each ratio as a fraction in lowest terms:
   a) 56 to 8 
   b) $2.40 to $3.80 
   c) \( \frac{5\frac{2}{5}}{2\frac{2}{9}} \)

8) Write the following as unit rates:
   a) $4.92 for 3 ounces 
   b) 345 miles in 5 hours

9) A grocery store is selling different sizes of cereal at the following prices. Which is the best deal? Justify your answer.
   - 9 oz. for $4.49
   - 12 oz. for $5.15
   - 18 oz. for $6.05

10) Determine if the following proportion is true or false. Justify your answer.
   \( \frac{4\frac{1}{8}}{9} = \frac{2\frac{3}{4}}{6} \)

11) A flyer is being printed on a piece of paper that is 8.5 inches wide. The two side margins are 1 inch wide each and a picture is 3.375 wide. How much space in the width is left for a paragraph that needs to be inserted?
12) Sadie orders 6 flat irons for $59.99 each and 8 curling irons for $39.95 each. Shipping on the items is a total of $25.00. How much is Sarah’s total purchase, including shipping?

13) A purchase totals $73.49. Sales tax on the purchase is a rate of $0.08 for every $1.00 spent. What is the sales tax amount on the purchase?

14) A tree grows at a rate of $\frac{3}{4}$ foot each year. At this rate, how tall will the tree be in 7 years?

15) In Federal prison, 9 in every 20 inmates are reported to have a mental health problem of some sort. If there are 78,800 prisoners in Federal prisons how many inmates have a mental health problem?

16) A patient is to receive 5 mg of Tizanidine. If one tablet is 2 mg of Tizanidine, how many tablets should the patient receive? (Do not round on this one. Give the exact quantity.)

17) A one-year subscription to a monthly magazine costs $9.95. The price of each issue at the newsstand is $2.99. How much would you save per issue by buying a year’s subscription rather than buying each issue at the newsstand?

18) A dose of a particular drug is 7.5 mL. How many doses of the drug are in a bottle of 475 mL?

19) If a piece of cable 180 feet long costs $60, what will 600 feet of the same cable cost?

20) Tammy has $346.75 in her checking account before depositing a check of $652.45. After making her deposit, she writes checks for $52.65, $81.34, and $157.63. How much will be left in her checking account then?