Simplify all answers and show your work!

1. To multiply or divide mixed numbers, it’s best to first change them into \( \frac{\text{numerator}}{\text{denominator}} \) before trying to multiply or divide.

2. In the division problem \( \frac{\frac{3}{7}}{\frac{1}{8}} \), which number represents the amount that we are starting with? _______

3. In a number (such as in “one and two tenths”), the term “and” means put in a ________________

4. When rounding decimals with money, rounding to the nearest cent is the same as rounding to the ________________ place.

5. Multiply: \( \frac{24}{25} \cdot \frac{35}{36} \)

6. Divide: \( \frac{24}{45} \div \frac{16}{18} \)

7. Divide: \( \frac{3}{8} \div \frac{1}{3} \)

8. Multiply: \( \frac{5}{5} \cdot \frac{3}{4} \)

9. Write < or > to make a true statement: \( \frac{18}{25} \quad \frac{11}{15} \)

10. Simplify: \( \frac{3}{4} \div \left( \frac{5}{8} - \frac{1}{2} \right) + \frac{1}{4} \)

11. Simplify:
   a) \( \left( \frac{1}{4} \right)^2 \)
   b) \( \sqrt[4]{25} \)

12. Write as a fraction in lowest terms:
   a) 0.36
   b) 3.4

13. Round to the nearest cent:
   a) $25.6523
   b) $155.18924

14. A car has \( 16 \frac{1}{3} \) gallons of gasoline in its tank. If the car averages 21 miles on one gallon of gasoline, how far can it travel on the gas that is in the tank?
15. Karen is making banners which need $3 \frac{1}{8}$ yards of fabric for each banner. She has $87 \frac{1}{2}$ yards of fabric available. How many banners can she make from this fabric?

16. Bob is training for a half-marathon. He ran $5 \frac{7}{8}$ miles on Thursday, $6 \frac{3}{4}$ miles on Friday, and $6 \frac{1}{2}$ miles on Saturday. How many miles did he run over this three day period?

17. How many pieces of tubing exactly $4 \frac{2}{3}$ feet long can be cut from a piece that is 30 feet long?

18. “Time and a half” overtime rate means that a person makes $1 \frac{1}{2}$ times their regular pay rate for each hour they work overtime. If Suki’s regular pay rate is $12$ an hour, how much would she make for overtime each hour if she gets “time and a half”?

19. The Browns plan a trip to their family reunion that is $156 \frac{1}{6}$ miles across the state. Joe drives for $52 \frac{1}{3}$ miles, Clarice drives for $61 \frac{1}{2}$ miles, and their daughter Saida drives the rest of the way. How far does Saida drive?

20. There were $12 \frac{7}{12}$ yards of wire on a spool. If a customer buys $7 \frac{5}{6}$ yards of wire from the spool, how many yards were left?