$\qquad$
Find the prime factorization of the number. If it is a prime number, write prime.
1.) 56
2.) 168

Find the greatest common factor (GCF) of the pair of numbers.
3.) 66,130
4.) 50,90

Find the least common multiple (LCM) of the pair of numbers.
5.) 18,150
6.) 5,15

Add, subtract multiply, or divide and SIMPLIFY. Write the answer as a fraction or a mixed number.
7.) $5 \frac{1}{2}-\frac{1}{8}$
8.) $\frac{11}{15} \times \frac{3}{8}$
9.) $2 \frac{1}{4} \div 1 \frac{1}{3}$
10.) $\frac{7}{10}+\frac{1}{8}$
11.) $1 \frac{3}{7}+\frac{1}{2}$
12.) $8 \frac{1}{2} \times \frac{1}{4}$
13.) $\frac{4}{5} \div \frac{1}{2}$
14.) $\frac{3}{4}-\frac{3}{7}$

Solve the following equations. Express your answer as a fraction or mixed number in SIMPLEST FORM. For number 19, express your answer as a decimal rounded to the nearest hundredth.
15.) $24-6 r=6(4-r)$
16.) $2(8-4 y)=\frac{1}{3}(33-18 y)+3$
17.) $8(x+4)=7(x+8)$
19.) $12.67+42.35 x=5.34 x$
20.) $4 t+3(t-2)=-5(t-4)-t$

Solve the following problem by reading carefully and completing each step.
21.) A farmer is buidling a new fence for his piggys. The boards that are each 1.5 foot thick frame the pigpen.

The outside of the frame is 23 feet long and 18 feet wide. The farmer needs to find the perimeter of the fence to help determine how many boards will be needed to fence all the piggys. Find the perimeter of the pigpen.

## a.) Define your variable(s).

b.) Draw a picture.
c.) Write an equation.
d.) Solve your equation.
e.) What is the perimeter of the farmer's pigpen?

