Section 6.3 – Problem Solving in Geometry with Proportions
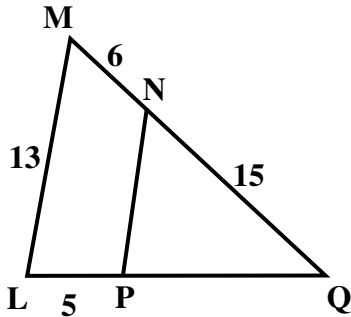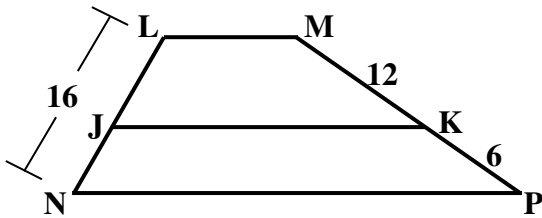
Ex 1:

Given $\dfrac{MQ}{MN} = \dfrac{LQ}{LP}$, find LQ.
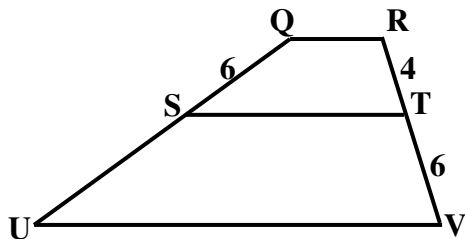
M
6
N
13
15
L   5   P   Q

Ex 2:

Given $\dfrac{LJ}{JN} = \dfrac{MK}{KP}$, find JN.

L   M
12
16
J   K
6
N   P

Ex 3:

Given $\dfrac{QU}{QS} = \dfrac{RV}{RT}$, find SU.

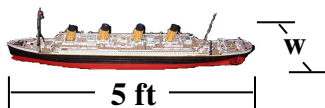Q   R
6   4
S   T
6
U   V

Ex 4:

The titanic was 900 feet long and 90 feet wide. If you wanted to make a scale model of the titanic that is 5 feet long, then how wide should it be?

Real Dimensions of Titanic

900 ft

90 ft
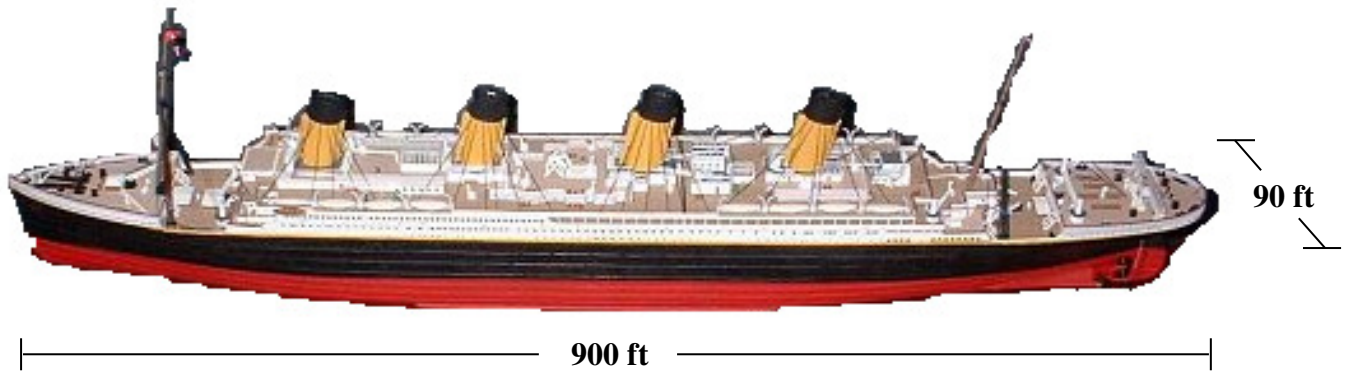
Model Dimensions of Titanic

5 ft

W

Ex 5:

In 2007, the exchange rate of Mexican pesos to American dollars was 11 to 1. When traveling to Mexico City, Caroline paid 143 pesos for a jacket. Set up a proportion and determine how much Caroline paid for the jacket in American dollars.

Ex 6:

Ruben and his wife recently purchased a home for $500,000. After owning the home for 1 year, they paid $5,000 in property taxes alone. Ruben's friend is planning to buy a $1,000,000 home, but Ruben is concerned that his friend does not have a clear understanding of how much he will have to pay in property taxes. Set up a proportion based on Ruben's own payments to determine how much his friend would have to pay in property taxes each year.