Advanced Math

1-7 (Day 1)
Variation and Modeling

Translate the following into mathematical equations.

y varies directly as x.

y varies inversely as x.

x varies jointly as y and z.

21) The annual simple interest on an investment is directly proportional to the amount invested. By investing $2500 in a certain bond issue, you obtained an interest payment of $187.50 at the end of 1 year. Find a mathematical model that gives the interest I for this bond issue at the end of 1 year in terms of the amount invested P.

Find a mathematical model for the verbal statement.

39) F varies directly as g and inversely as the square of r.

Write a sentence using the variation terminology of this section to describe the formula.

45) $A = \frac{1}{2}bh$

Find a mathematical model representing the statement. In each case, determine the constant of proportionality.

61) z varies directly as the square of x and inversely as y.
($z = 6$ when $x = 6$ and $y = 4$.)

Assignment:
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22, 24,
27-30 all,
32-64 even,
65-74 all