Name

2-8A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 143–147 for objectives.

PROPERTIES Objective D

1. Consider the data at the right.

x	10	20	30	40	50	60
y	1.2	4.8	10.8	19.2	30.0	43.2

   a. What is the effect on y if x is doubled? _____

   b. What is the effect on y if x is tripled? _____

   c. **Fill in the Blanks** y varies _____ with the _____ power of x.

2. Consider the data at the right.

A	2.5	5	7.5	10	12.5	15
C	18	9	6	4.5	3.6	3

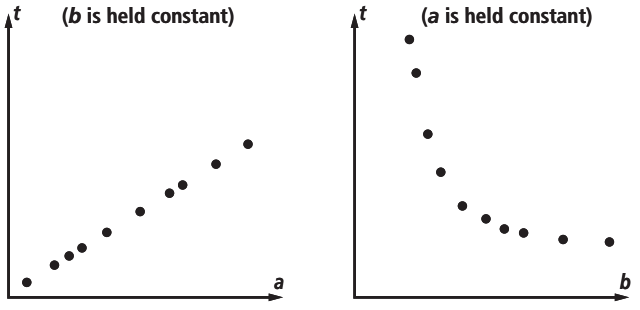
   a. What is the effect on C if A is doubled? _____

   b. What is the effect on C if A is tripled? _____

   c. **Fill in the Blanks** C varies _____ with the _____ power of A.

USES Objective H

3. **Multiple Choice** Which is the most appropriate model for the data in the graphs at the right?



_____

A $t = kab$ B $t = \frac{k}{ab}$

C $t = \frac{ka}{b}$ D $t = \frac{kb}{a}$

4. Students in a physics class tied a weight to a string and twirled it around in a circle. They measured the length ℓ of the string, the speed s, and the tension t in the string and collected the data in the tables below.

Length held constant

Speed (m/s)	5	10	15	20	25
Tension (N)	6	24	54	96	150

Speed held constant

Length (cm)	50	75	100	125	150
Tension (N)	8.4	5.6	4.2	3.4	2.8

   a. Does the tension vary with speed or with the square of speed? _____

   b. Does the tension vary with length or with the square of length? _____

   c. Write a variation equation relating t, s, and ℓ. Do *not* solve for the constant. _____