Algebra I

8-9 Direct Variation Translate the following: y varies directly asx.

Solve for the constant of variation.

Substitute (x_1, y_1) into your answer. Then abstitute (x_2, y_2) .

The proportion $y_1 = y_2 = y_3$ Direct Variation as a Proportion $y_1 = y_2 = y_3$ Substitute $y_1 = y_2 = y_3$ Substitute $y_2 = y_3$ Substitute $y_3 = y_4$ Substitute $y_4 = y_5$ Substitute $y_4 = y_5$ Substitute $y_5 = y_5$ Substitute y_5

Given that (x_1, y_1) and (x_2, y_2) are ordered pairs of the same direct variation; = k.x.

1) Find the missing value for (12, 3) $(x_2, 7)$ a) using the k method.

b) using the Proportion method.

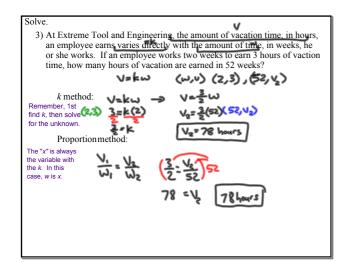
I've noticed in all my experience; though the k method is more work, students make less mistakes than with the proportion method. Most mistakes with the proportion method are the result of writing the wrong fractions.

For each of the following:

a) write as a ratio equal to the constant of variation,

b) and write the constant as a fraction in lowest terms or as a decimal rounded to the nearest thousandth.

2) The height of a tree, in feet, is directly proportional to the radius of its trunk in inches. A tree with a radius of 9 inches is 24 feet tall.



Assignment:

Handout 1-24 all

You may choose to work
with either the k method
or the proportion method.
You do not need to use
both.