

Problem-Based Task: Estimating Depreciation**Coaching**

- a. Which variable needs to be determined in the equation $c = 22,000 \cdot d^t$ so that Yasmina can estimate the value of a car in year t ?

- b. Use the data about the older car to help Yasmina complete the equation. Which variables are known for this equation?

- c. Substitute the known quantities for the variables in the equation.

- d. Use inverse operations to find an equivalent equation in the form $x^a = b$.

- e. Solve for the variable.

- f. What is the equation Yasmina can use to estimate the value of a car purchased for \$22,000 in any year t ?

- g. How much will Yasmina's new car be worth after 6 years?