$\qquad$ Pd $\qquad$ Date $\qquad$

1) In order to join a dancing club, there is a $\$ 30$ startup fee and a $\$ 4$ monthly fee.
a. Define $x$ and $y$.
b. Write a linear equation for the total cost.
b. If Ms. Draper joins the club for 6 months, how much will she spend in all?
c. How many months was Ms. Draper a member of the club if she spent $\$ 62$ ?
2) Cameron is designing a calendar as a fundraising project for math class. The cost of printing is $\$ 500$, plus $\$ 2.50$ per calendar.
a. Define $x$ and $y$.
b. Write a linear equation for the total cost.
b. If Cameron sells 200 calendars, how much will the total cost be?
c. If the total cost is $\$ 600$, how many calendars did he print?
d. Cameron plans to sell the calendars for $\$ 5$ each. How many calendars must he sell in order to earn more than they cost? ${ }^{* *}$ CHALLENGE QUESTION**
3) An airplane is 30,000 feet above ground and begins descending at a rate of 2,000 feet per minute.
a. Define $x$ and $y$.
b. Write a linear equation for the plane's elevation.
b. If the plane has descended for 10 minutes, what is its elevation?
c. If the plane is at an elevation of 4,000 feet, how long has it been descending?
4) You bought a magazine for $\$ 5$ and four erasers. You spent a total of $\$ 25$. How much did each eraser cost? Define your variable. Write and solve a linear equation for the scenario.
5) Shienne won 40 bouncy balls playing horseshoes at her school's game night. Later, she gave two to each of her friends. She only has 8 remaining. How many friends did she give to? Define your variable. Write and solve a linear equation for the scenario.
6) For a field trip, 4 students rode in cars and the rest filled nine buses. How many students were in each bus if 472 students were on the trip? Define your variable. Write and solve a linear equation for the scenario.
