Name $\qquad$ Date $\qquad$

## Oil Business

In 2018, an oil company rented an oil rig for $\$ 100,000$ per day. The company drilled a well and started pumping oil.
(1) How much oil must be sold each day to equal the rental cost? Note: 42 gal of oil could be sold for $\$ 70$ in 2018.

(2) The company estimates that the profit, $P$, in millions of dollars, after pumping oil for $D$ days is $P=0.5 D-40$.
(a) What is the profit after the first day of pumping oil?
(b) On another sheet of paper or using technology, make a table of pairs of values $(D, P)$ and graph the ordered pairs.
(c) How can the company make $\$ 30 \mathrm{M}$ of profit?
(3) An equivalent expression for $P$ is $0.5(D-80)$. How does the 80 in this expression relate to the company's situation?

