$\qquad$

1. This problem concerns the equation $x^{2}+x y+y^{2}=7$
(a) Find $\frac{d y}{d x}$.
(b) Use your answer from part (a) to find the slope of the tangent to the graph of $x^{2}+x y+y^{2}=7$ at the point $(2,-3)$.
$\qquad$
2. This problem concerns the equation $x y^{3}=x y+6$
(a) Find $\frac{d y}{d x}$.
(b) Use your answer from part (a) to find the slope of the tangent to the graph of $x y^{3}=x y+6$ at the point $(1,2)$.
