$\begin{array}{c} {\rm Quiz} \ 7 - {\rm MA16020} - {\rm February} \ 5, \ 2018 \\ {\rm Alden \ Bradford} \end{array}$

1. (4 points) The following list of equations has one separable, one linear, one both, and one neither. Give the type of each.

(a)
$$\frac{dy}{dx} = y + 1$$

(b) $3y' - xy^2 = x$
(c) $-\frac{dy}{dx} = \sqrt{y} + x$
(d) $t^2 dy + ty dt = 6 dt$

2. (6 points) Find the general solution to
$$\frac{dy}{dx} = y + x$$
.