8. [9 points] Boxer Paul "Stretch" Cassenick decides to do some footwork training by practicing moving around the boxing ring. The ring is in the shape of a 20x20 foot square, and Paul's movement is modeled by the differential equation

$$\frac{dy}{dx} = f(x, y),$$

for some function $f(x, y)$. The following table gives some values of $f(x, y)$.

y \ x	0	5	10	15	20
0	3	1	1	0	-2
5	0	0	0	0	0
10	2	1	2	0	2
15	0	-1	-3	0	1
20	-2	0	-2	0	-3

a. [6 points] If $y(0) = 0$, use Euler's method with $\Delta x = 5$ to estimate $y(20)$. You must show your calculation for each step of Euler's method to receive full credit.

b. [3 points] Circle all of the following that **could** be equilibrium solutions.

$x = 5$ $\qquad\qquad$ $x = 15$ $\qquad\qquad$ $y = 5$ $\qquad\qquad$ $y = 15$