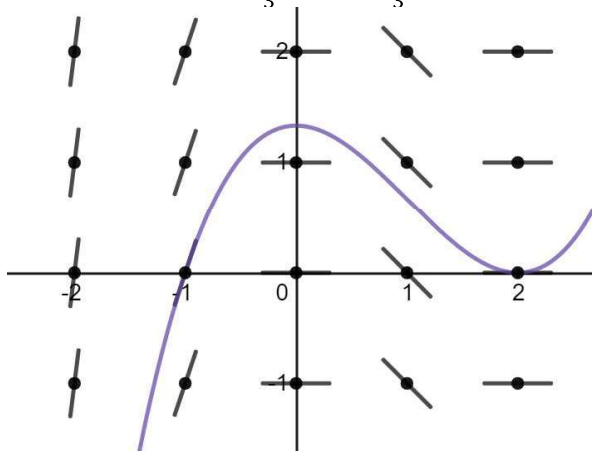


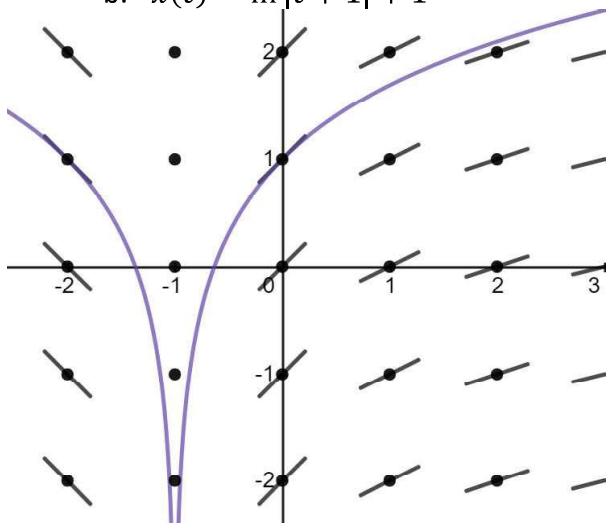
**Solutions:**

1.

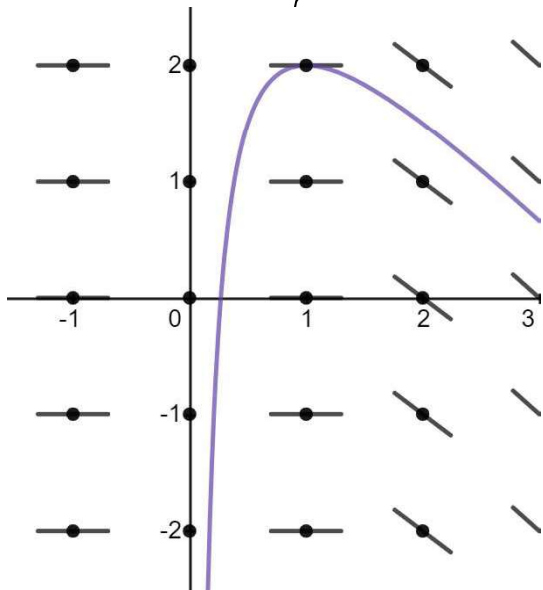
a.  $y(x) = \frac{x^3}{3} - x^2 + \frac{4}{3}$



b.  $x(t) = \ln|t + 1| + 1$

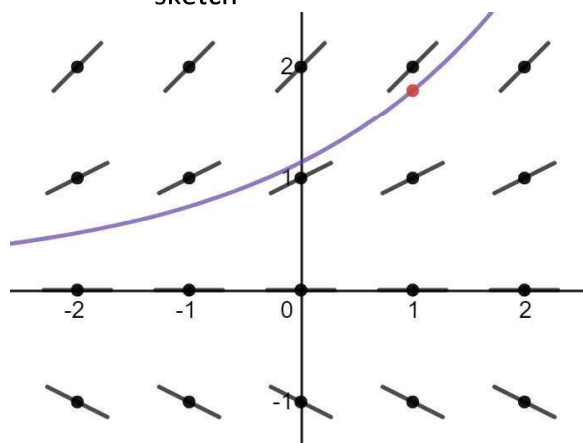


c.  $m(r) = -\frac{1}{r} - r + 3$

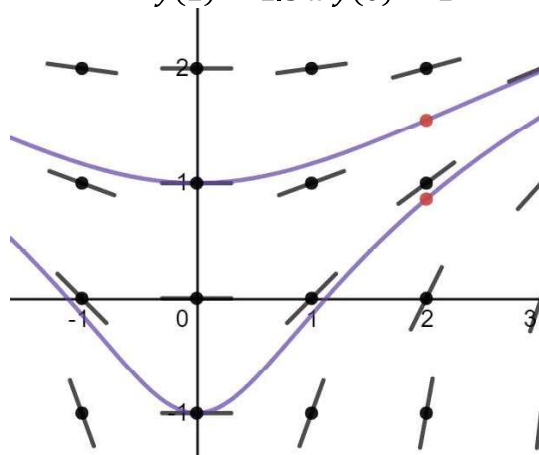


2.

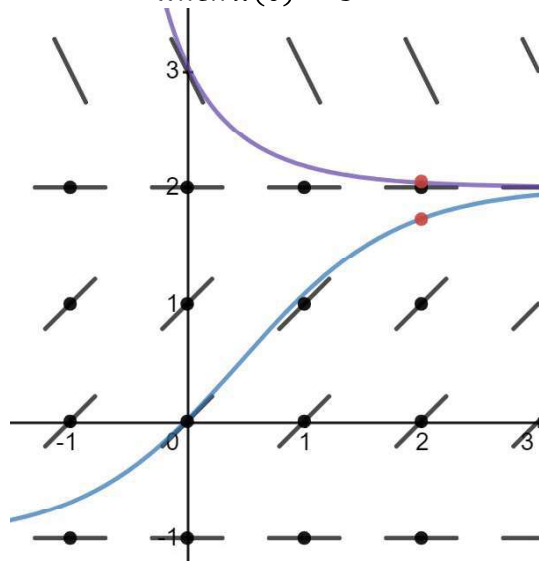
a.  $y(1) \approx 1.8$ . It is somewhere between 1.5 and 2 depending on your slope field sketch



b.  $y(2) \approx 0.9$  (around 1) if  $y(0) = -1$  and  $y(2) \approx 1.5$  if  $y(0) = 1$

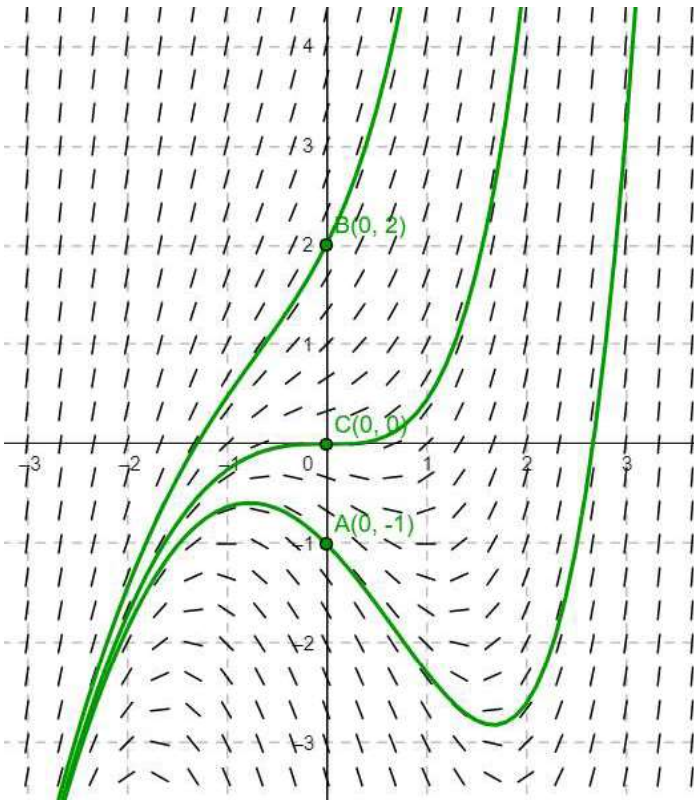


c.  $x(2) \approx 1.8$  when  $x(0) = 0$  and  $x \approx 2.1$  when  $x(0) = 3$

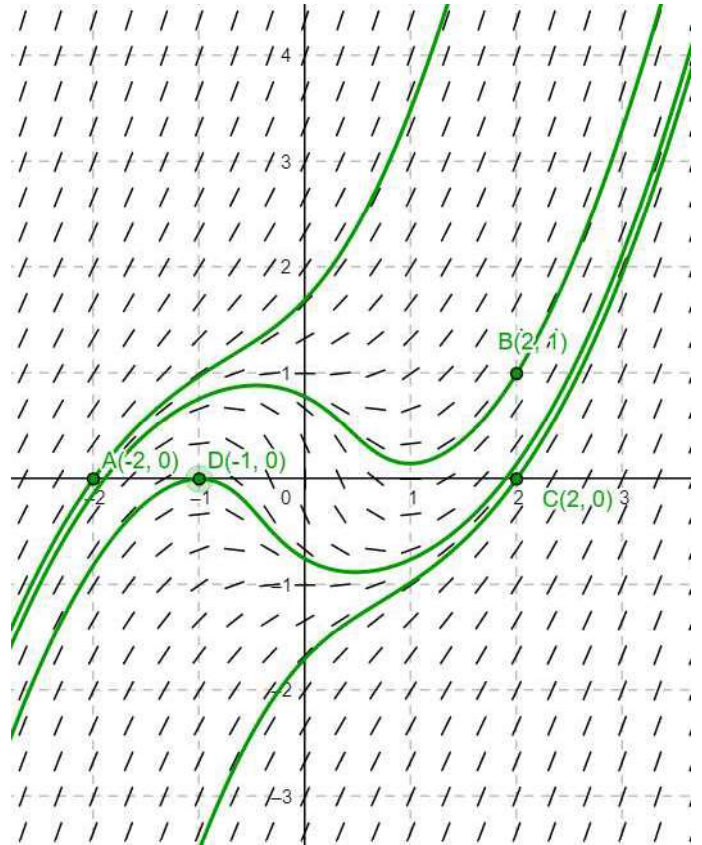


3.

a.



c.



b.

