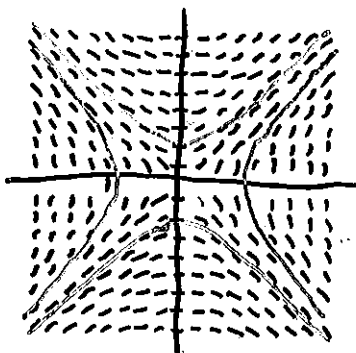


## Slope Field Card Matching Solutions

Slope Fields	Differential Eqns.	Conclusions
SF 1	5	10
SF 2	9	8
SF 3	1	2
SF 4	7	6
SF 5	4	1
SF 6	2	3
SF 7	6	9 (or 3)
SF 8	3	5
SF 9	10	4
SF 10	8	7

p 681 # 2, 9, 10, 15, 16

2a



b)  $y^2 = x^2 + C$

For  $C=0$   $y = \pm x$  lines

For  $C \neq 0$   $x^2 - y^2 = -C$  hyperbolas

9)  $y = \sqrt{(\ln x)^2 + 4}$

10)  $y = -\sqrt{3 + x + \ln x}$

15) a)  $y = 1000 \cdot 3^t$

b) 27,000

c)  $27,000 \ln 3 \approx 29,663$  bacteria

d)  $\frac{\ln 2}{\ln 3} \approx .63$  hrs

16) a)  $y = 18 \cdot 2^{-t/25}$

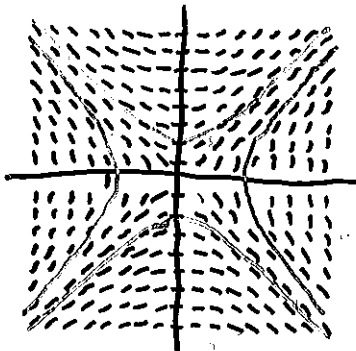
b)  $t = 25 \frac{\ln 9}{\ln 2} \approx 79$  yrs

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