

Sec 2.7 day 1 page 155 (1-16)

① a)  $f'(-3) = -.2$

$f'(-2) = 0$

$f'(-1) = 1$

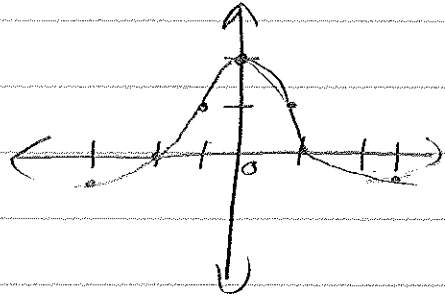
$f'(0) = 2$

$f'(1) = 1$

$f'(2) = 0$

$f'(3) = -.2$

b)



② a)  $f'(0) = 6$

$f'(1) = 0$

$f'(2) = -1.5$

$f'(3) = -1.3$

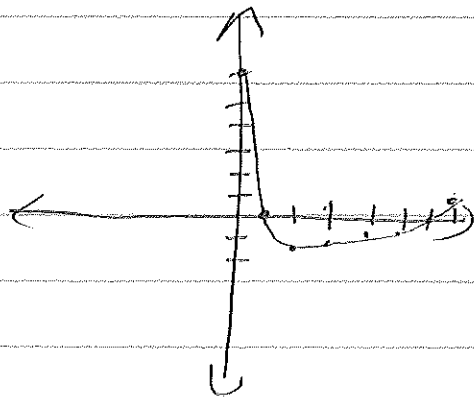
$f'(4) = -.8$

$f'(5) = -.3$

$f'(6) = 0$

$f'(7) = .2$

b)



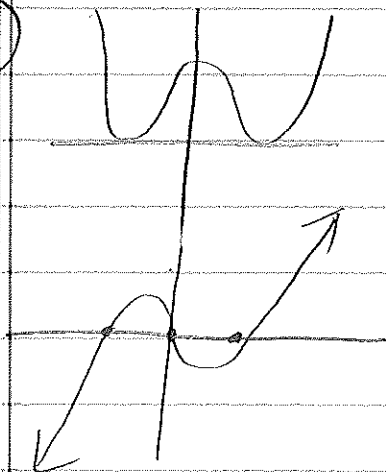
③ a) II

b) IV

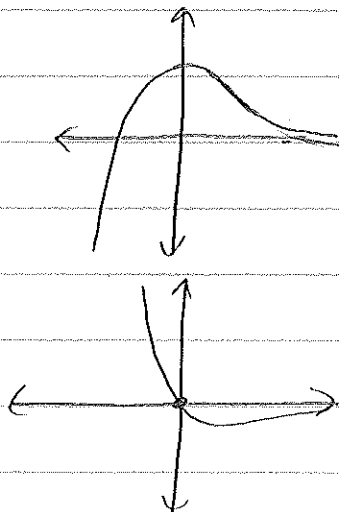
c) I

d) III

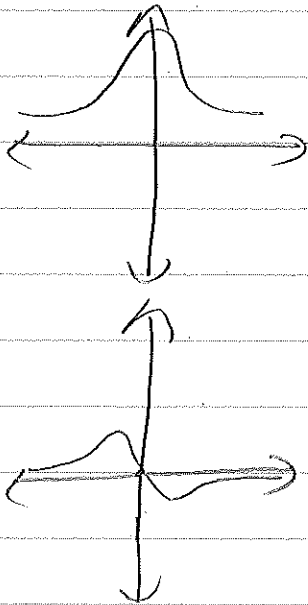
④



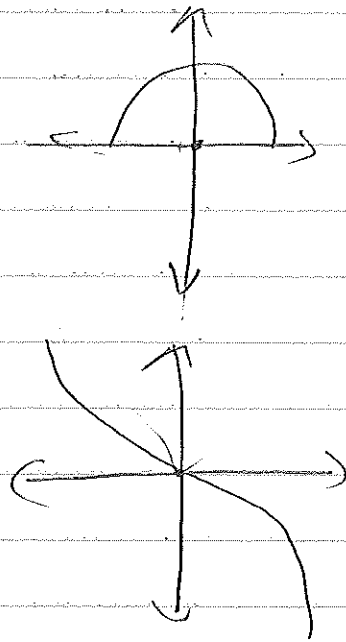
⑤



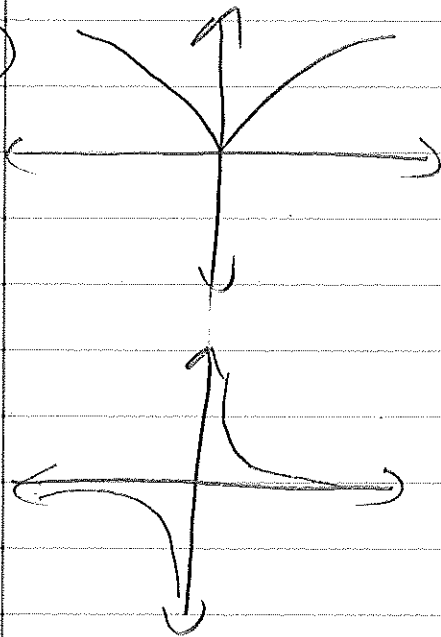
6



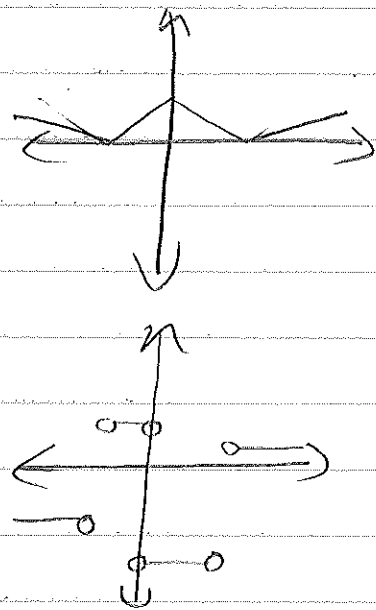
7



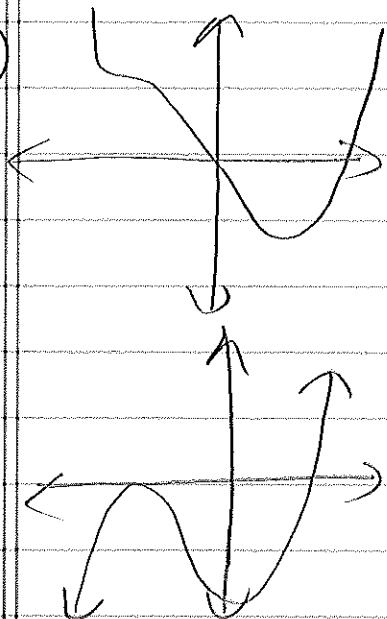
8



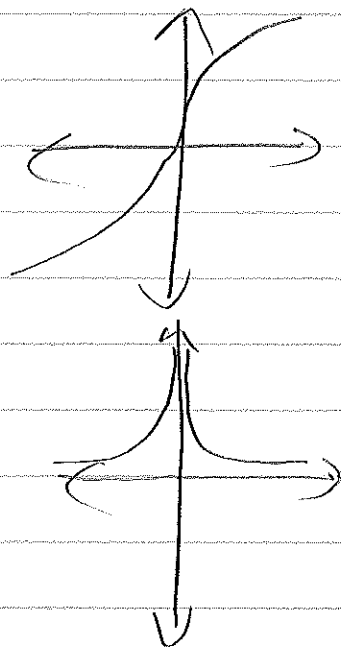
9



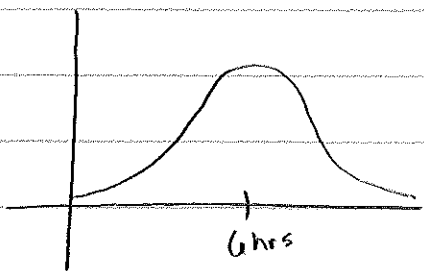
10



11

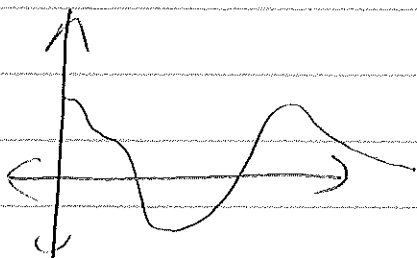


12



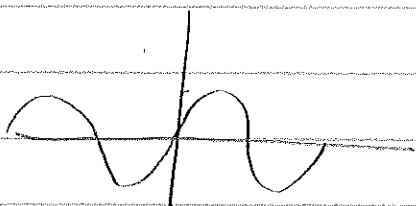
slopes are always positive.  
 @ 6 hours is the most rapid rate of growth.

13

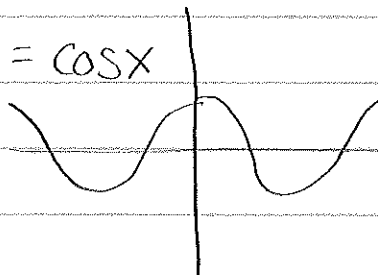


appears to be negative  
 from 1963 to 1971

14

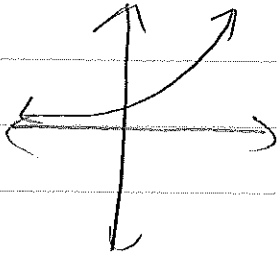


$$S(x) = \cos x$$

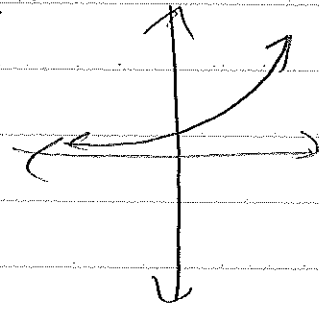


15

$$f(x) = e^x$$

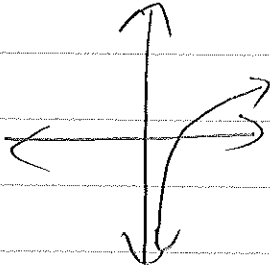


$$f'(x) = e^x$$



16

$$f(x) = \ln x$$



$$f'(x) = \text{maybe } \frac{1}{x} \text{ (0, } \infty)$$

