

### 2007 ANSWERS

1	D	6	B	11	A	16	D
2	D	7	E	12	B	17	D
3	B	8	A	13	C	18	A
4	B	9	A	14	C	19	A
5	D	10	B	15	A	20	E

21. decreasing & concave up:  $(\frac{7}{4}, 2)$

22. (a) y-axis sym.

(b) VAs:  $x=3, x=-3$ ; HAs:  $y=9$

(c) increasing on  $(-\infty, -3) \cup (-3, 0]$

(d) check your response with TI-84

23. (a)  $\frac{dy}{dt} = -\frac{y}{x}$

(b)  $\frac{dA}{dt} = \frac{2t}{16}$

24.  $(x, y) = (\frac{1}{\sqrt{3}}, \frac{2}{3})$