

Test 4, 1-3, 5, 7, 8, 11-13 Test 3 31, 33 (9)

1.  $\sin x$   
 $-\sin(2x) + 3$  (2)  
 reflect    Horiz stretch    Vert shift

$$\frac{16(x^{\frac{1}{4}} y^{\frac{1}{2}})^6}{\sqrt{9xy^4}} = \frac{16x^{\frac{3}{2}} y^{-3}}{3x^{\frac{1}{2}} y^2}$$

$$\frac{16x}{3y^5} \quad (2)$$

$$x^2 - 4x + 4 = \frac{5}{2} + 4$$

$$x^2 - 4x - \frac{5}{2} = 0$$

$$x = \frac{4 \pm \sqrt{16 - 4(1)(-\frac{5}{2})}}{2} \quad (3)$$

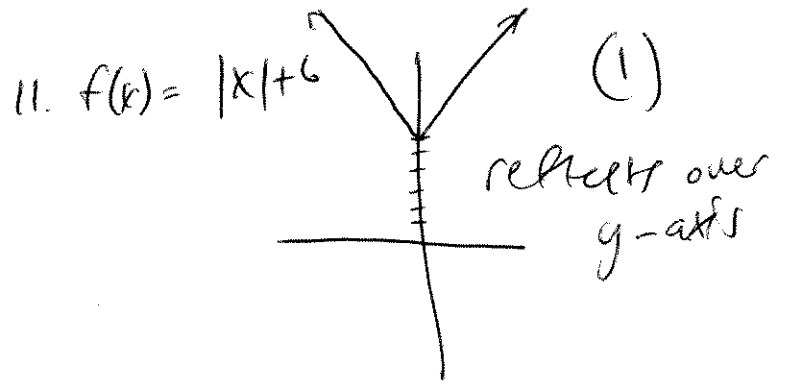
$$x = \frac{4 \pm \sqrt{26}}{2}$$

5.  $(8+2i)(8-2i) \leftarrow$  conjugates  
 $64 - 4i^2 = 68$  (3)

7. (1) sum - product

$$s = -16(4)^2 + 90(4) + 6$$

$$= 110 \quad (1)$$



12.  $\frac{1620}{2160} = .75 = r$   
 25% decay.

13.  $y = 6000(1.4)^x =$   
 Series = SUM  
 $\sum_n = \frac{a_1 - a_1 r^n}{1 - r} = \frac{6000 - (6000)(1.4)^{14}}{1 - 1.4}$   
 $= 16,51800$  views (2)

31. F b G/D x-i y-n +/-?

$3^x$	3	G	N/A	1	+
$(.87)^n$	.87	D	N/A	1	-

33.  $a = .5$   $b = 1.10$  Sum:  
 $\sum_n = \frac{a_1 - a_1 r^n}{1 - r} = \frac{.5 - .5(1.1)^{30}}{1 - 1.1} =$   
 82,247 miles

