Test 4: 14, 15, 17-21, 23 Test 3: 34-36 (10)

4. $\left(\frac{x^2}{2} = 5x - 17\right)^2$

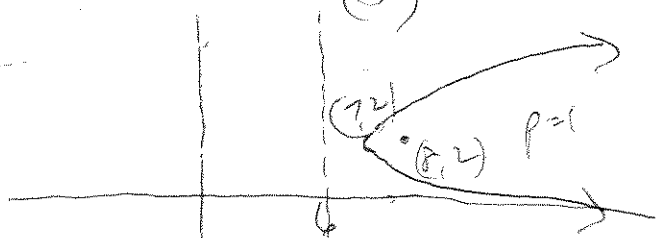
$x^2 = 10x - 34$

$x^2 - 10x + 34 = 0$ (2)

5. (2, 1) sub in or look at tables

$\log_2 2 = -\frac{3}{2}(2) + 4$ ✓ (3)

7.



Vertex = (7, 2) $p = 1$

$4(y-2)^2 = x - 7$

8. $s = \theta r$

$3 = \theta(1)$

$3 = \theta$ (1)

19. $y = pe^{rt}$

$180e^{.028(2)} = 190.36$ (1)

20. calculator or

$32^{-\frac{4}{5}} = \frac{1}{32^{4/5}} = \frac{1}{\left(\sqrt[5]{32}\right)^4}$

$= \frac{1}{2^4} = \frac{1}{16}$ (1)

21. $m(x) = 4x^3 - 6$

$y = 4x^3 - 6$

$x = 4y^3 - 6$

$\sqrt[3]{\frac{x+6}{4}} = \sqrt[3]{y^3} = y = m^{-1}(x)$ (2)

23. $(x+3)\left(x - \frac{15}{x+3} = \frac{5x}{x+3}\right)(x+3)$

* graph on plug in if you don't know!

$x^2 + 3x - 15 = 5x$

$x^2 - 2x - 15 = 0$

$(x-5)(x+3) = 0$

$x = 5$ $x = -3$ reject

34. $x^4 - 25x^2 + 144$

$(x^2 - 16)(x^2 - 9)$

$(x+4)(x-4)(x+3)(x-3)$

roots are the zeroes of the function

35. $g(x) = f(x-2) - 3$

right 2, down 3

each point right 2, down 3

$g(x)$ is odd. If you turn it upside down it's the same b/c it reflects