

BONUS — GRAPH OF A
LOGARITHMIC FUNCTION
FALL 2011
943-DW Applied MATH

SKETCH $y = \log_2(2-x) + 3$

SOLUTION

STEP 1 CONVERT TO EXPONENTIAL FORM

$$y - 3 = \log_2(2 - x)$$

$$2^{y-3} = 2 - x$$

$$x = 2 - 2^{y-3}$$

STEP 2
(ISOLATE x)

STEP 3 BUILD TABLE OF VALUES
SELECTING y VALUES

| y | $x = 2 - 2^{y-3}$ |
|-----|-------------------|
| 5 | -2 |
| 4 | 0 |
| 3 | 1 |
| 2 | $3/2$ |
| 1 | $7/4$ |

