

**Problem 1 (Circle a letter).** The inverse of the function  $y = mx + b$  is

(a)  $y = -\frac{1}{m}x + b$

(b)  $y = \frac{1}{m}x - \frac{b}{m}$

(c)  $y = mx - b$

(d)  $y = \frac{1}{m}x + \frac{1}{b}$

**Problem 2 (Circle a letter).** The inverse of the function  $y = \frac{x-a}{x-b}$  is

(a)  $y = \frac{x-a}{x-b}$

(c)  $y = \frac{bx+a}{ax+b}$

(d)  $y = \frac{bx-a}{x-1}$

(b)  $y = \frac{x+b}{x+a}$

**Problem 3.** Find  $x$  in each case.

(a)  $27^{2/3} = x$

(b)  $x^{3/2} = 125$

(c)  $32^x = 8$

(d)  $\log_5 25 = x$

(e)  $\log_x 81 = \frac{4}{3}$

(f)  $\log_7 x = -2$