

Homework 023 1-11 odd

1.  $f(x) = x^{1/4}$  ✓

Domain =  $x \in [0, \infty)$   
 $y \in [0, \infty)$

3.  $f(x) = x^3 + 3x - 4$

Domain =  $\mathbb{R}$  ✓

5.  $g(t) = \frac{1}{t+2}$

domain:  $t \neq -2$  ✓

7.  $\frac{1}{u^2 - 4}$

$(u+2)(u-2)$

$u \neq \pm 2$  ✓

9.  $f(x) = x^{-4} + (x-1)^{-3}$

$\frac{1}{x^4} = \frac{1}{(x-1)^3}$

$x^4 \neq 0$   $(x-1)^3 \neq 0$

$x \neq 0$   $x \neq 1$  ✓

11.  $g(y) = 10\sqrt{y} + y^{-1}$

Domain =  $y > 0$

$y \in (0, \infty)$