

## 2.7 Square Roots

If  $3^2 = 9$ , then 3 is the square root of 9.

How many perfect squares do you know? (1-20)

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400

$5^2 = 25$  so  $\sqrt{25} = 5$

$\sqrt{49} = 7$

$-\sqrt{4} = -2$

$\pm\sqrt{36} = \pm 6$        $\pm$  means plus or minus ... +6 or -6 ... compact form

Radical  $\sqrt{a}$        $\sqrt{\quad}$  is the radical symbol  
 $a$  is the radicand

$\sqrt{-16}$  ... hmmm...  $?^2 = -16$        $\therefore$  No Solution

$4 \cdot 4 = 16$   
 $-4 \cdot -4 = 16$        $\rightarrow$  only options

Irrational #'s - # that can't be written as a fraction. A decimal that never ends or repeats.

$\sqrt{81} = 9$  - is not irrational       $\sqrt{2}$  is irrational

P113: 3-8,  
14, 15, 16, 18, 20  
25, 36, 38

To plot w/o a calculator

$\sqrt{32}$

$\sqrt{50}$

$\sqrt{71}$

between Perfect Squares

25  $\hat{?}$  36, closer to 36

49  $\hat{?}$  64, closer to 49

64  $\hat{?}$  81, closer to 64

