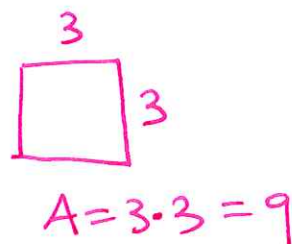


# Section 4.6 - Square Roots

## Perfect Squares



$1^2 = 1 \cdot 1 = 1$	1
$2^2 = 2 \cdot 2 = 4$	4
$3^2 = 3 \cdot 3 = 9$	9
$4^2 =$	16
$5^2 =$	25
$6^2 =$	36
$7^2 =$	49
$8^2 =$	64
$9^2 =$	81
$10^2 =$	100
$11^2 =$	121
$12^2 =$	144

perfect squares

Square roots go the opposite way

$$\sqrt{144} = 12$$

$$\sqrt{121} = 11$$

$$\sqrt{64} = 8$$

what number squared equals 144

$$28. \sqrt{16} = 4$$

$$30. \sqrt{-121} = -11$$

Bring down the sign

$$38. \sqrt{\frac{36}{121}} = \frac{6}{11}$$

Because

$$\left(\frac{6}{11}\right)^2 = \frac{6}{11} \cdot \frac{6}{11} = \frac{36}{121}$$

$$42. \quad -\sqrt{\frac{1}{4}} \\ = -\frac{1}{2}$$

$$\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$

440s

$$46. \quad -\sqrt{.49} = \\ = -.7$$

$$\begin{array}{r} .7 \\ .7 \\ \hline 49 \end{array}$$

$$\sqrt{.09} = .3 \\ \begin{array}{r} .3 \\ .3 \\ \hline 9 \\ .09 \end{array}$$

$$50. \quad \sqrt{100} + \sqrt{16} \\ = 10 + 4 \\ = 14$$

$$52. \quad \sqrt{4} + \sqrt{36} \\ = 2 + 6 \\ = 8$$