

# Estimating Roots

SQUARE

- 1
- 4
- 9
- 16
- 25
- 36
- 49
- 64
- 81
- 100
- 121
- 144
- 169

$$\sqrt{64}$$

$$\pm 8$$

$$\sqrt{70}$$

$$\text{guess} \\ \pm 8.3$$

$$8.3$$

$$\sqrt{81}$$

$$\pm 9$$

8	64	2.4
.3	2.4	.09

68.89  
too low

$\pm 8.4$		
8	64	3.2
.4	3.2	.16

70.56  
too high



$$\sqrt{36}$$

$$\pm 6$$

$$\sqrt{41}$$

$$6.3$$

$$\sqrt{49}$$

$$\pm 7$$

6	36	1.8
.3	1.8	.09

$$39.69 \downarrow$$

6	36	2.4
4	2.4	.16

$$\pm 6.4$$

$$40.96 \downarrow$$