

# of bands	stretch distance (cm)
1	44
2	55
3	66
4	77
5	88
n	$11n + 33$

$44 \rightarrow +11$
 $55 \rightarrow +11$
 $66 \rightarrow +11$
 $77 \rightarrow +11$
 $77 + 11$
 $11(1) \pm ? = 44$
 $11 \pm ? = 44$
 33
 set them equal

drop height to water

500cm

Determine the number of rubber needed for the following drop heights:

SHOW WORK

1. 300 cm

2. 700 cm

3. 1300 cm

$$11n + 33 = 300$$

$$11n + 33 - 33 = 300 - 33$$

$$11n = 267$$

$$\frac{11n}{11} = \frac{267}{11}$$

$$n = 115.18$$

Needs 115

$$11n + 33 = 300 \quad \text{"Subtract 33 from each side"}$$

$$11n + 33 - 33 = 300 - 33 \quad \text{"reduce"}$$

$$11n = 267$$

"divide each side by 11"

$$\frac{11n}{11} = \frac{267}{11}$$

$$n = 24.27 \quad \text{NEED 24 bands}$$

$$11n + 33 = 700 \quad \text{"Subtract 33 from each side"}$$

$$11n + 33 - 33 = 700 - 33 \quad \text{"simplify"}$$

$$11n = 667$$

"divide each side by 11"

$$\frac{11n}{11} = \frac{667}{11}$$

$$n = 60.64 \quad \text{Need } \cancel{60} \text{ 60 bands}$$