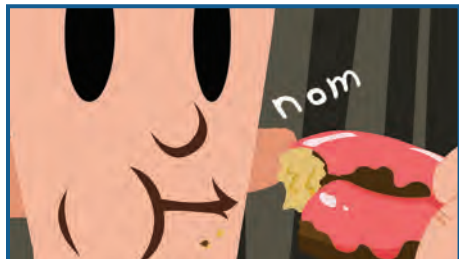


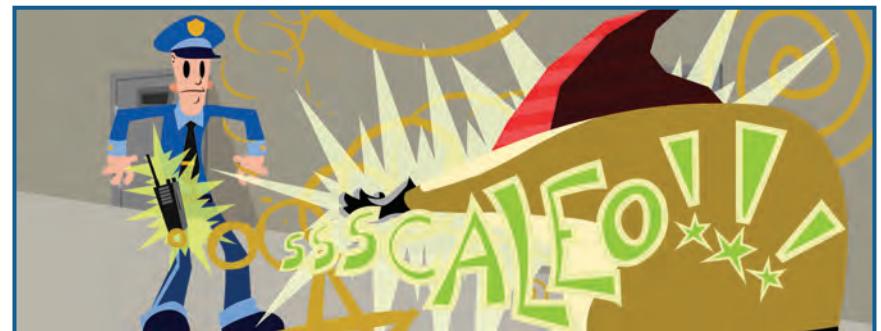
# MATH SNACKS

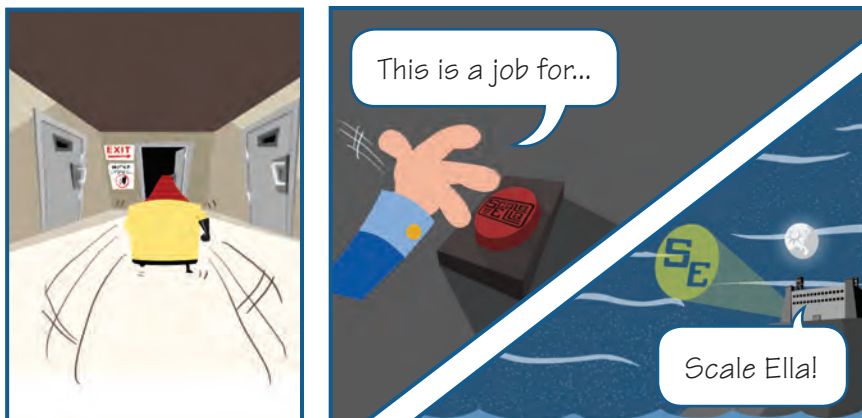
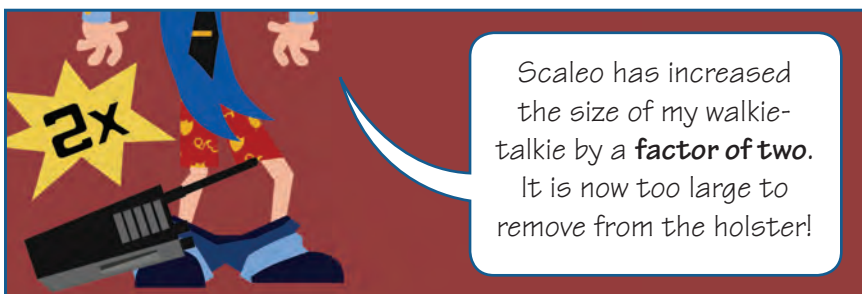
## Scale Ella

View the animation at <http://www.mathsnacks.org>



Fold Here

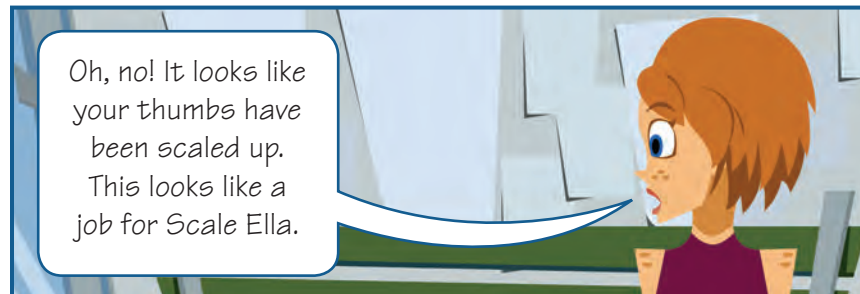
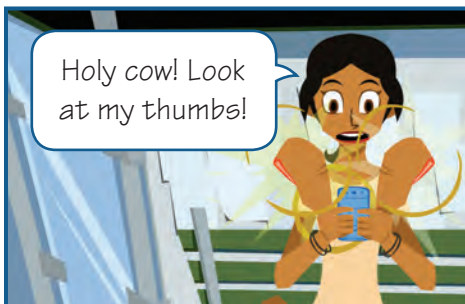


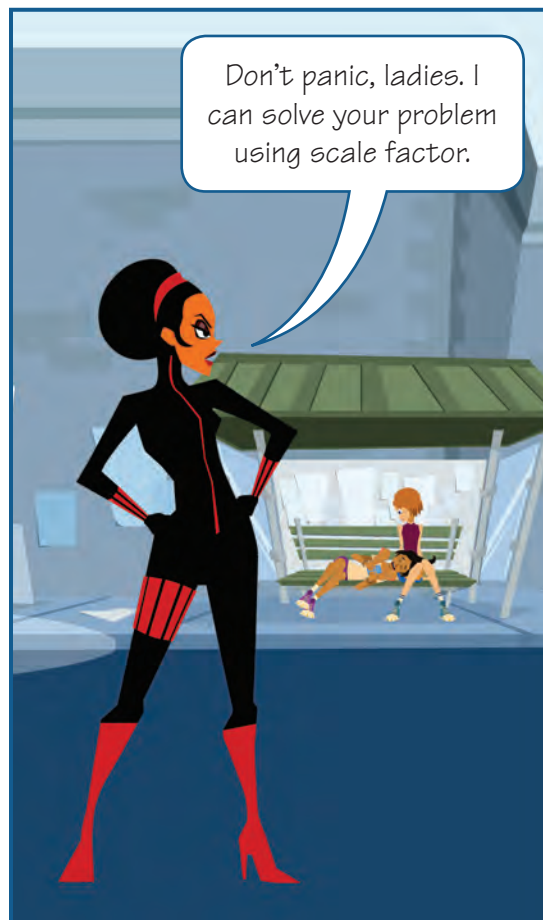


Janice texted me that Matt says that Eli says that Gerritt says that Pamela says that James said he likes me, and wants to know if I like him!









Fold Here

Your thumbs were **2 inches** tall.

Now, they are **10 inches** tall.

**Normal Size**

**Scaled-Up Size**

2 times what is 10?

**2**  
**x What**  
**10**

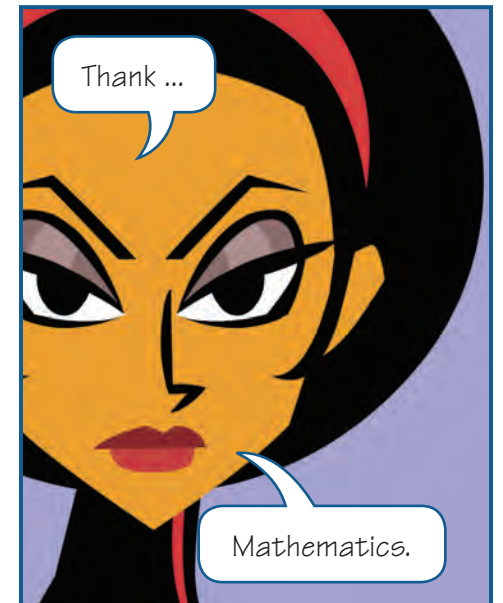
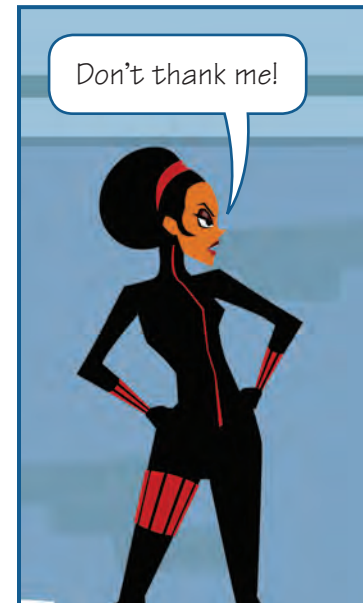
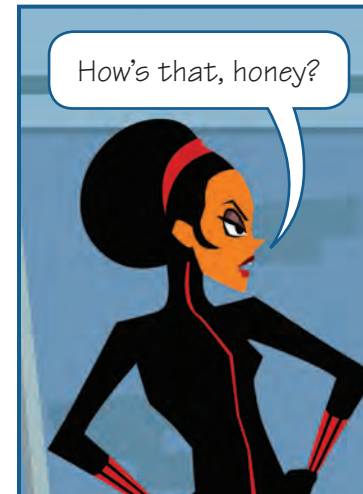
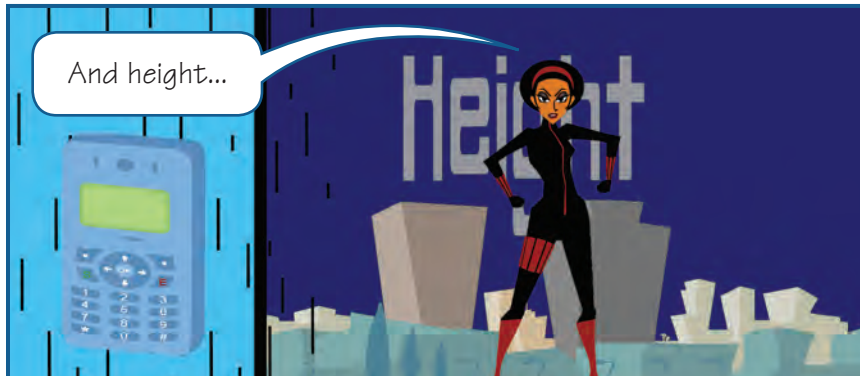
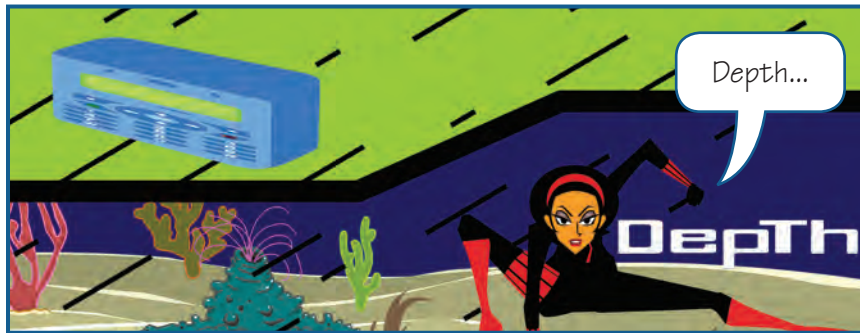
Five!

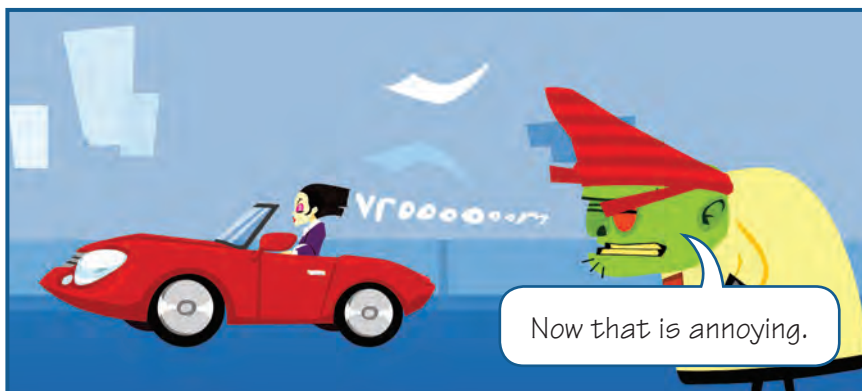
**2**  
**x 5**  
**10**

**5**  
**Scale**  
**Factor**

Five is the scale factor!











Fold Here

Her tires were **21** inches tall.

Normal Size

Now, they are **7** inches tall. **21** times **what** is **7**?

Scaled-Down Size

$$\frac{21 \times \text{What} = 7}{21 \quad 21}$$

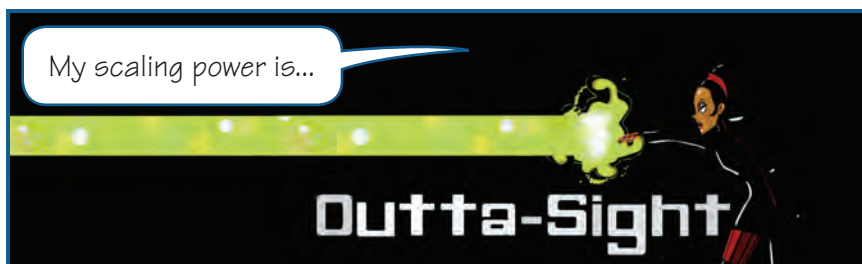
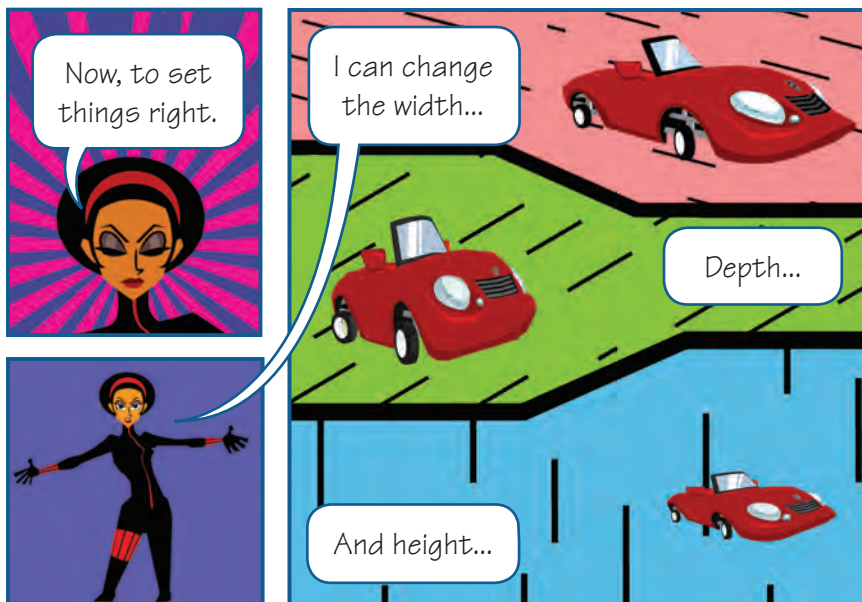
Divide both sides by **21**.

What equals **7** over **21**? Reduce **7** over **21** to  $\frac{1}{3}$ .

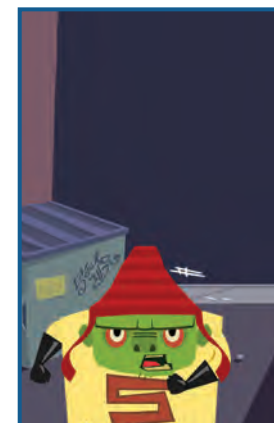
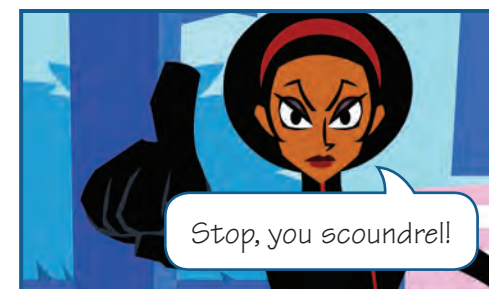
$$\frac{7}{21} = \frac{1}{3}$$

**Scale Factor**

$\frac{1}{3}$  is my...



Fold Here







Fold Here



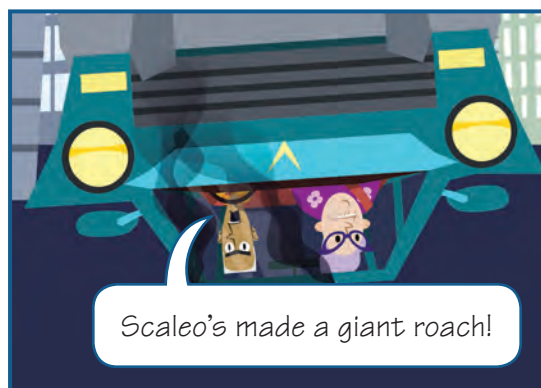




Fold Here



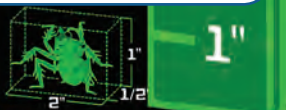




Fold Here



A cockroach is about **an inch** long.



Normal Size

But now...



The roach is **50 feet** long. That's **600 inches**!

$$50' = 600''$$

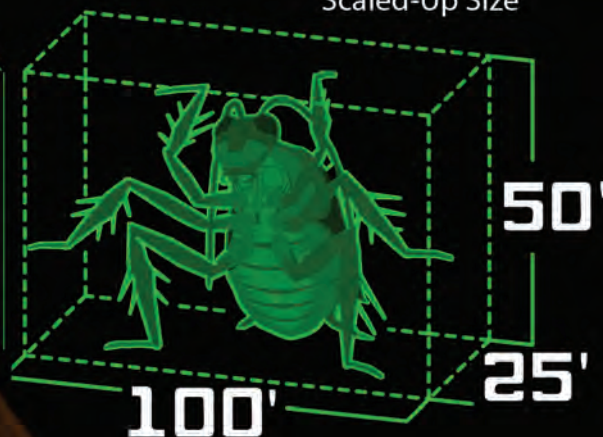
Fifty Feet

Equals

Six-Hundred Inches

Scaled-Up Size

50' 600''



What times 1 equals 600?

$$\text{What} \times 1 = 600''$$

In other words,  
600 divided

$$\frac{600''}{\text{What}} = 1$$

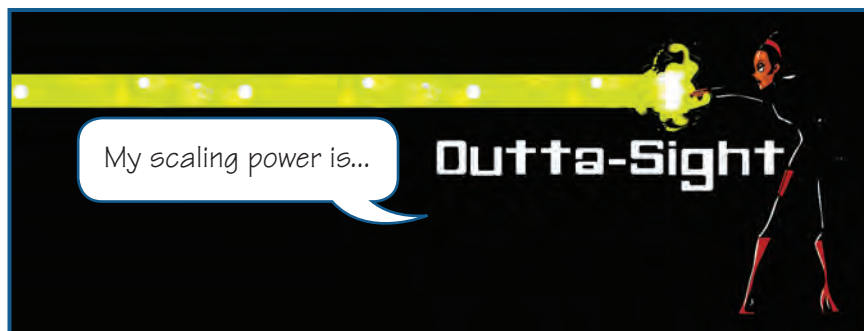
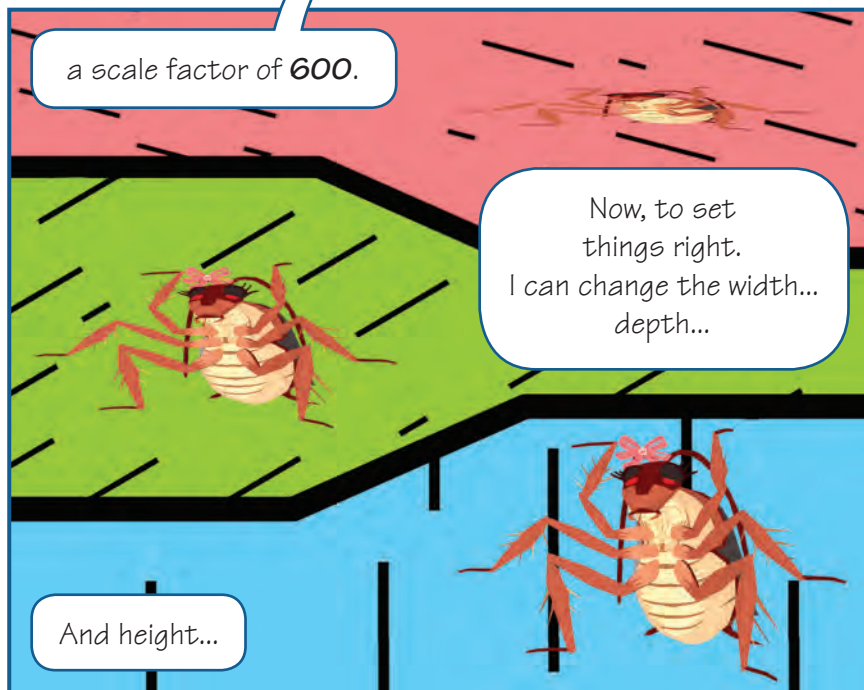
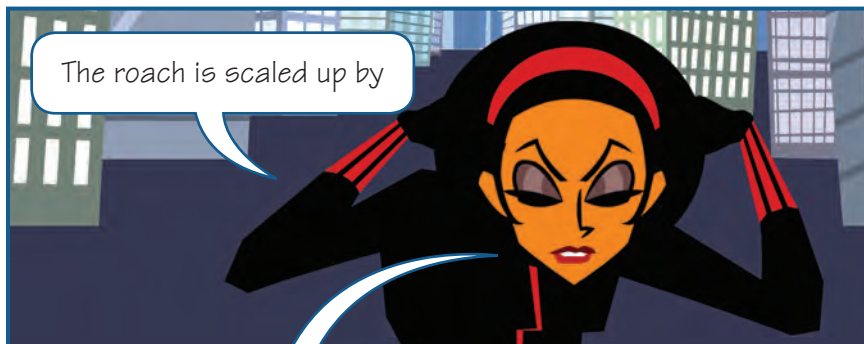
by What is 1?

$$\frac{600''}{600''} = 1$$

600 divided by  
600 is 1.

**Scale  
Factor  
600**

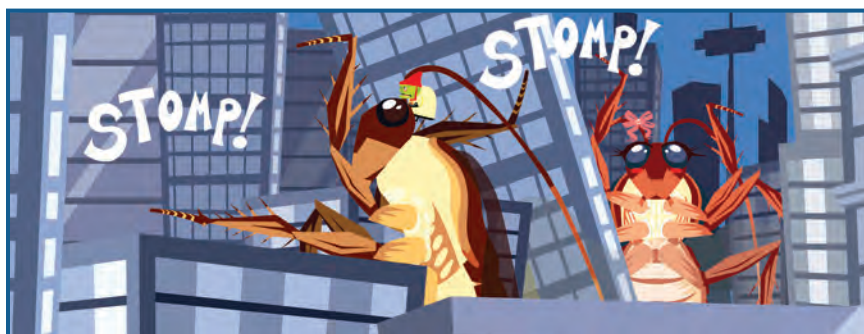




Fold Here







Fold Here

