



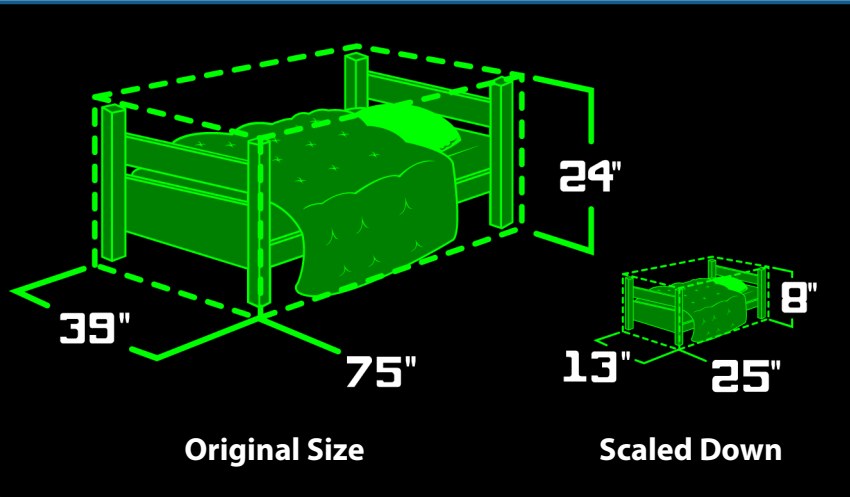
Scale Ella

Learner Guide



Watch the video, *Scale Ella*, and complete these activities. The video and an instructor guide are available on iTunes U (search "Math Snacks") and at mathsnacks.org

The regular size of a twin bed is 39" wide, 75" long and 24" high. Scaleo has scaled your bed to this size: 13" wide, 25" long and 8" high.



1. What can Scale Ella do so that you can sleep comfortably tonight?

2. Scaleo has now scaled you to be bigger by a scale factor of 7. What is your new height?

$$\square \times 7 = \square$$

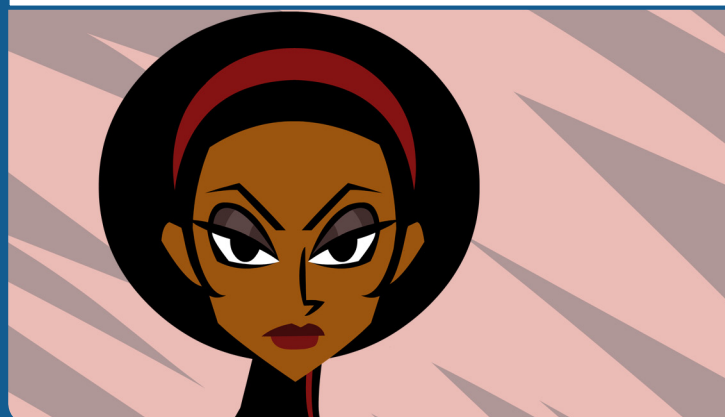
Your Height x Scale Factor = Your New Height

A. Will you fit on a regular-sized bed?



B. If you can't, what can Scale Ella do to help you?

3. You have been given Scale Ella's powers, but before you scale items you have to practice by scaling numbers. Pick a scale factor that will increase the numbers and a scale factor that will decrease the numbers. Once you pick your numbers, complete the table.



	Scale Up By	Scale Down By
Numbers	<input type="text"/>	<input type="text"/>
.05		
1/2		
7		
13		
25		
102		

4. If you could scale **up** three things in your life by a factor of 5,

A. What would you scale up?

Why?

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5. If you could scale **down** three things in your life by a factor of $\frac{1}{5}$,

B. What would you scale down?

Why?

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Learning Games Lab

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