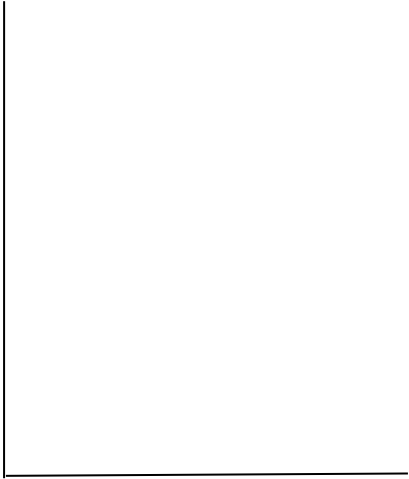
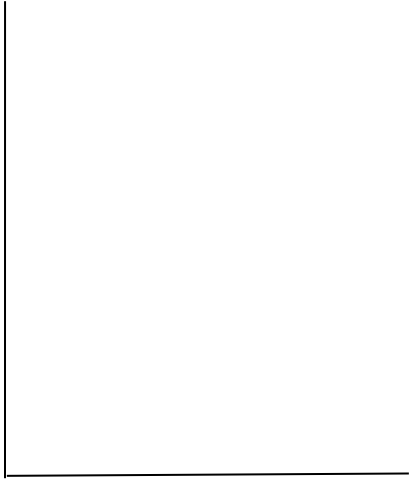


## The Central Limit Theorem

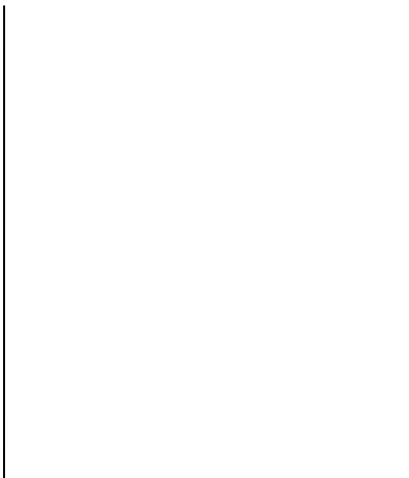
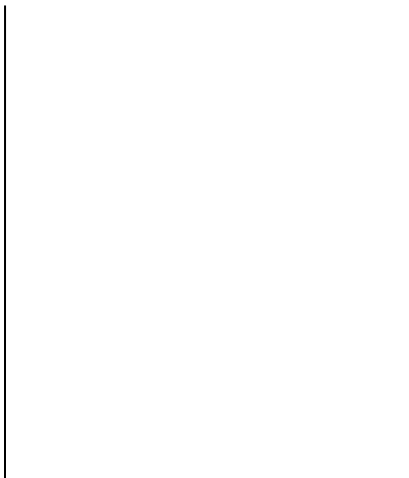
In this activity, you will:

- Predict the shape of a histogram of sample averages
- Explore the relationship between sample size and the shape of a histogram of sample averages

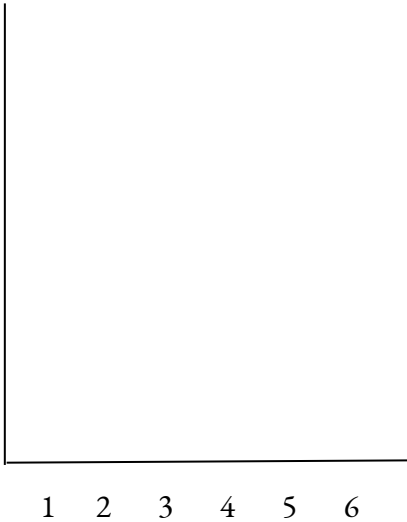
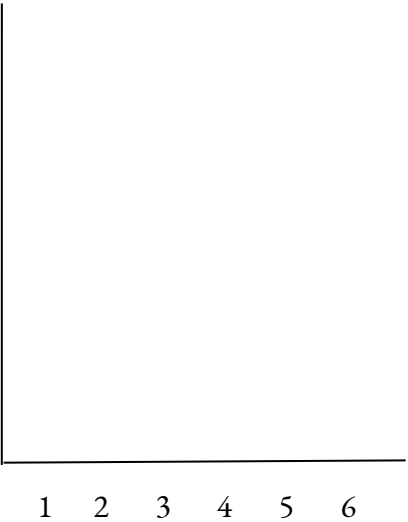
### Step 1:

Roll a die 5 times and record your rolls:	Plot a histogram of <b><u>your</u></b> rolls: 	Plot a histogram of the <b><u>class's averages</u></b> : 
Calculate your average:		

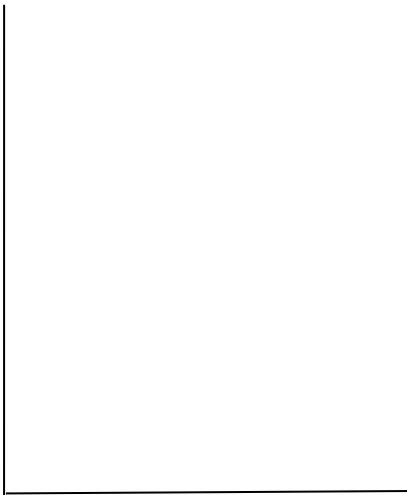
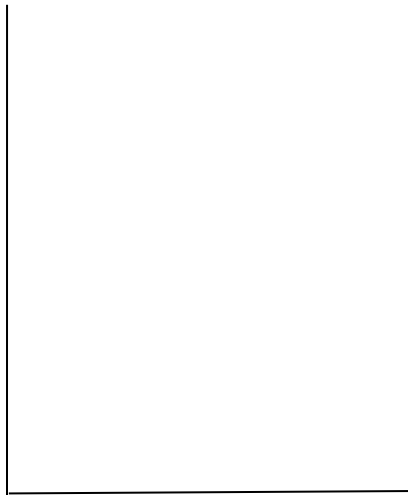
### Step 2:

Roll a die 15 times and record your rolls:	Plot a histogram of <b><u>your</u></b> rolls: 	Plot a histogram of the <b><u>class's averages</u></b> : 
Calculate your average:		

**Step 3:**

<p>Predict what the histogram of <b><u>your</u></b> rolls will look like if you roll your die 30 times:</p> 	<p>Predict what the histogram of the <b><u>class's averages</u></b> will look like if everyone rolls their die 30 times:</p> 
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**Step 4:**

<p>Roll a die 30 times and record your rolls:</p>	<p>Plot a histogram of <b><u>your</u></b> rolls:</p> 	<p>Plot a histogram of the <b><u>class's averages</u></b>:</p> 
<p>Calculate your average:</p>		

**Discuss with your partner:** What pattern do you see in the histogram of your rolls? What pattern do you see in the histogram of the class's averages?