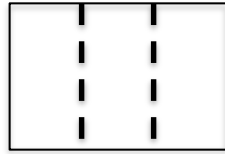


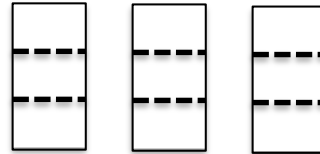
6. A giant piece of paper is cut into three equal pieces and then each of those is cut into three equal pieces and so forth. How many papers will there be after a round of 10 cuts? 20 cuts? n cuts?



Zero Cuts



One Cut



Two Cuts

- a. Use a table, a graph, and an equation to model this situation.
- b. Identify the domain of the function.
- c. Would it make sense to look for the number of pieces of paper at 5.2 cuts? Why?
- d. Would it make sense to look for the number of cuts it takes to make 53.6 papers? Why?

7. Medicine taken by a patient breaks down in the patient's blood stream and dissipates out of the patient's system. Suppose a dose of 60 milligrams of anti-parasite medicine is given to a dog and the medicine breaks down such that 20% of the medicine becomes ineffective every hour. How much of the 60 milligram dose is still active in the dog's bloodstream after 3 hours, after 4.25 hours, after n hours?
- Use a table, a graph, and an equation to model this situation.
 - Identify the domain of the function.
 - Would it make sense to look for an amount of active medicine at 3.8 hours? Why?
 - Would it make sense to look for when there is 35 milligrams of medicine? Why?

