Challenge 1	
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1. Describe conceptually the relationship between distance, physical size and apparent angular size.
2. Derive a mathematical relationship between distance, physical size and apparent angular size.
Challenge 2
 Sketch pictures of spiral galaxies that are the same physical size. Call them A and B. Have one person stand with galaxy A at a distance of 15 tiles (ft).
1. What is the angular size of galaxy A?
2. How far away would a second person need to stand so that galaxy B is half of the angular size of galaxy A?
3. Test your prediction.