

Properties of Flux and Divergence – Class Handout

1. Describe the visual effect on the projection of symbols on the wall when the plastic sheet is rotated.
2. Describe how to position the plastic sheet to obscure the projection of the middle column of symbols.
3. Describe how to position the plastic sheet to obscure the projection of the bottom row of symbols.
4. Describe how to position the plastic sheet to obscure only the first column of symbols while leaving the second and third columns unobscured.
5. Describe how to position the plastic sheet to obscure the first and third columns of symbols while leaving the second column unobscured.
6. Predict whether the symbols will appear more visible, less visible, or remain the same when projected on the wall as the plastic sheet is moved farther from the projector. Explain your prediction.
7. Was your previous prediction accurate? Explain what you think is happening to the projection as the plastic sheet moves farther from the projector.
8. Discuss what results from our last experiment tell us about how the vector field changes. Explain how your experimental results today relate to the ideas of flux and divergence.