

Ritter Experiment Worksheet

DATA/OBSERVATIONS:

| Width of the Visible Spectrum | Width of the Ultraviolet Region | Total Width |
|-------------------------------|---------------------------------|-------------|
| | | |

CALCULATIONS:

Compute the average widths measured by the class.

| | Sum of the Widths (W_{sum}) | Total number of observations (N) | Class average (W_{sum} / N) |
|-----------------------------|--|----------------------------------|--|
| Width of Visible Spectrum | | | |
| Width of Ultraviolet Region | | | |
| Total Width | | | |

Compute the percentage of the light-colored region on the blueprint paper that was exposed to visible light and to ultraviolet light.

| Percentage of Region Exposed to Visible Light: $(\text{Width of Visible Spectrum} / \text{Total Width}) \times 100$ | Percentage of Region Exposed to Ultraviolet Light: $(\text{Width of Ultraviolet Region} / \text{Total Width}) \times 100$ |
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| | |

QUESTIONS AND DISCUSSION:

What happened to the blueprint paper after it was developed?

Describe what happened to the area which was exposed to the visible part of the spectrum.

Describe what happened to the blueprint paper in the region beyond the violet part of the spectrum - where no visible light could be seen.

What do you think exists just beyond the blue part of the spectrum?

Do you think that this proves the existence of an invisible form of light? Why or why not?

Discuss any other observations or problems.