Perspective Drawing Formulas

Student | Task 1 of 4 | LETTER

Original prompt

Draw a one-point perspective reference with a horizon line, a vanishing point, a ground line, and three receding vertical posts at depths 0, 4, and 12 units, using eye height h = 4. Label the scale factor at each post.

For this construction, eye height h and eye-to-picture-plane distance f are both 4 units.

Work out your drawing or calculation

Perspective Drawing Formulas

Student | Task 2 of 4 | LETTER

Original prompt

Compute the scale factor for a post at depth d = 8 with eye height h = 4, and state the drawn height if the true height is 4 units. Show the formula substitution and the result as a fraction and a decimal.

For this construction, eye height h and eye-to-picture-plane distance f are both 4 units.

Work out your drawing or calculation

Perspective Drawing Formulas

Student | Task 3 of 4 | LETTER

Original prompt

A receding interval from depth 0 to depth 4 has a scale factor of 0.5 at its far end. A second interval from depth 4 to depth 8 has a scale factor of 0.333... at its far end. Compare the two intervals and explain which appears more foreshortened and why, using the formula.

For this construction, eye height h and eye-to-picture-plane distance f are both 4 units.

Work out your drawing or calculation

Perspective Drawing Formulas

Student | Task 4 of 4 | LETTER

Original prompt

Redraw the three-post construction from Task 1 but move the vanishing point to the left of center. Describe how the receding lines change and confirm that the scale factors at each depth remain the same.

For this construction, eye height h and eye-to-picture-plane distance f are both 4 units.

Work out your drawing or calculation