

MATH 121

(Day 5)

The Inventors of Perspective

Richard Hammack:

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MATH 121

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The Inventors of Perspective



Leone Battista Alberti
1404–1472

MATH 121

(Day 5)

The Inventors of Perspective



Filippo Brunelleschi
1377–1446



Leone Battista Alberti
1404–1472

MATH 121

(Day 5)

The Inventors of Perspective



Filippo Brunelleschi
1377–1446



Leone Battista Alberti
1404–1472



Piero della Francesca
1412–1492



Filippo Brunelleschi, 1377–1446

- ▶ goldsmith
- ▶ painter
- ▶ sculptor
- ▶ architect
- ▶ inventor
- ▶ engineer
- ▶ builder
- ▶ mathematician



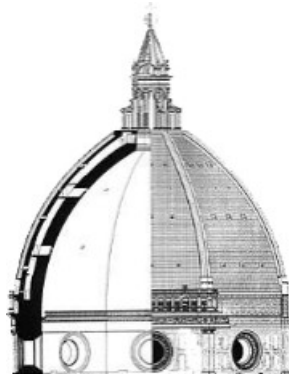
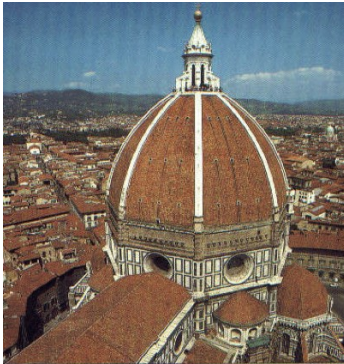
The Cathedral of Florence. Dome built by Brunelleschi 1418–36





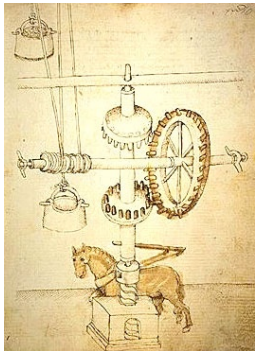


Dome interior by Giorgio Vasari and Federico Zuccari, 1568–1579

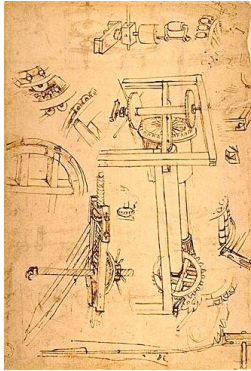
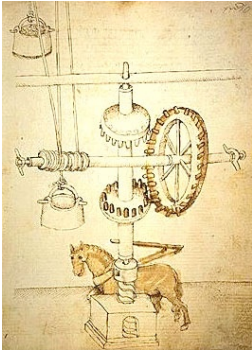


Brunelleschi's Dome, built 1418–36 (Height: 375 feet)

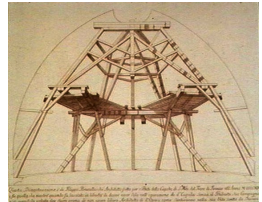
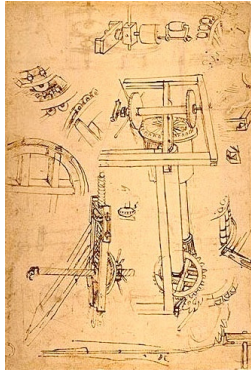
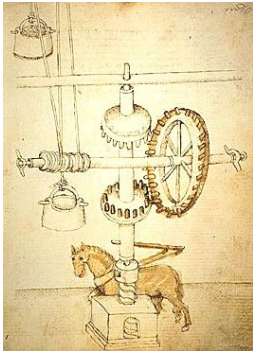
Machinery by Brunelleschi



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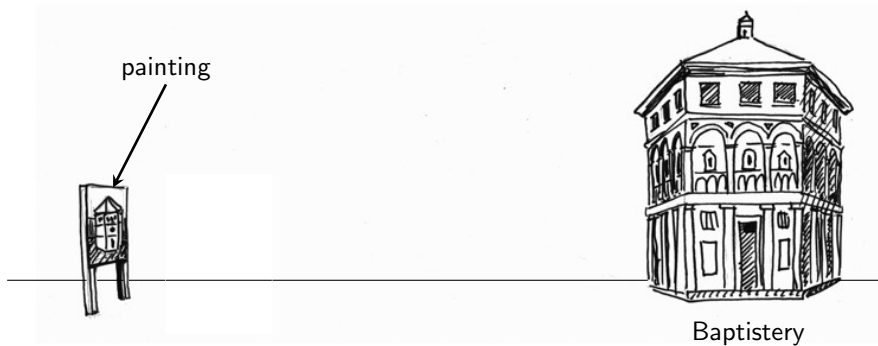






Florence Baptistery, built 1059–1128

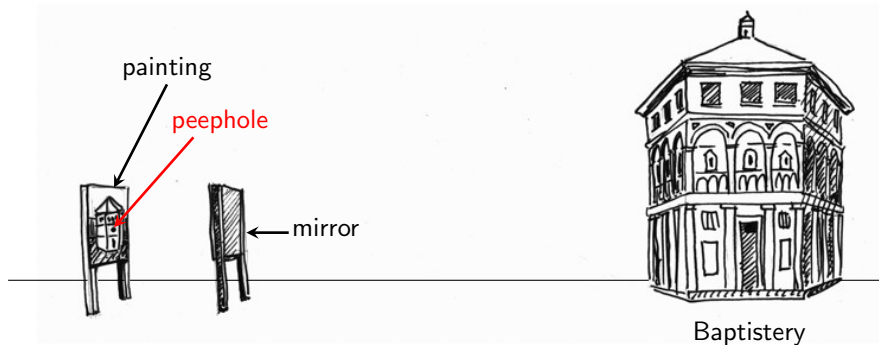
Brunelleschi's Peepshow (The First Perspective Painting)



Brunelleschi's Peepshow (The First Perspective Painting)



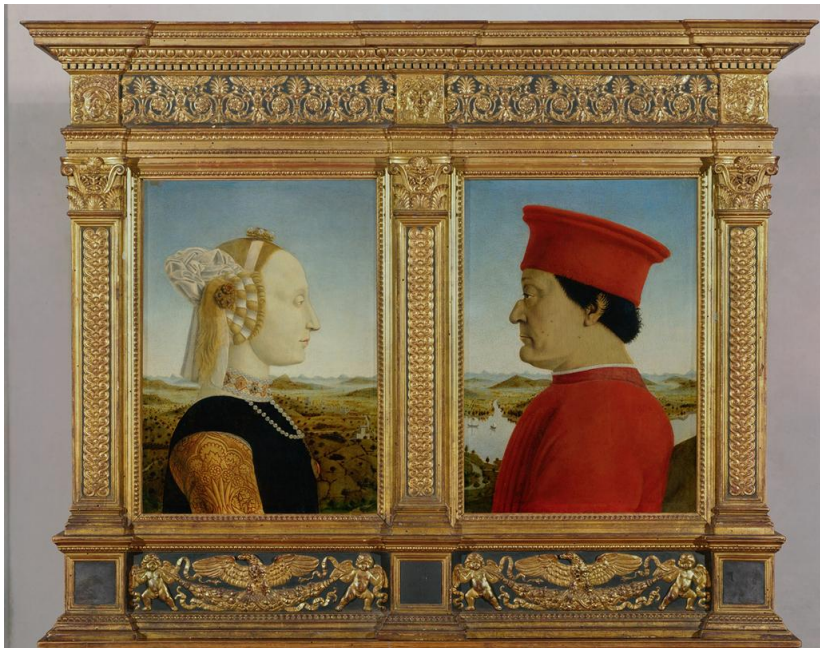
Brunelleschi's Peepshow (The First Perspective Painting)





Piero della Francesca, 1412–1492

- ▶ painter
- ▶ mathematician
- ▶ author



Federigo da Montefeltro and his wife Battista Sforza



Piero della Francesca, *Resurrection*, c. 1464



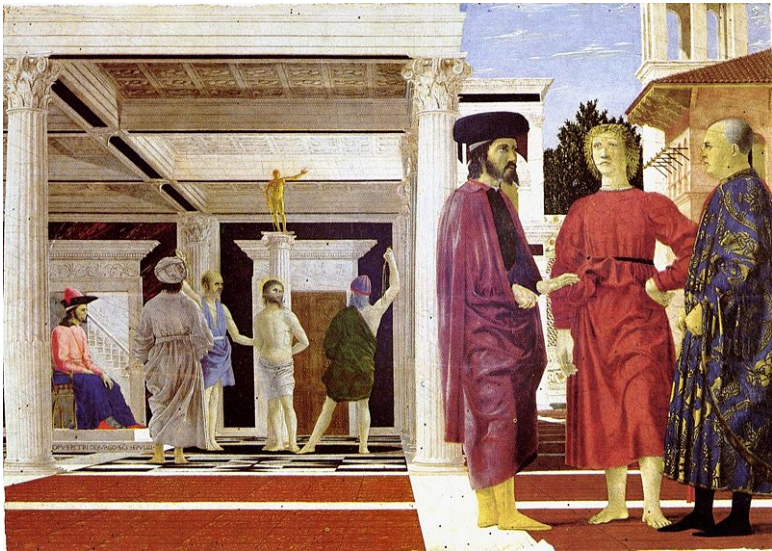
Piero della Francesca
The Dream, 1460
Fresco
Basilica of San Francesco, Arezzo



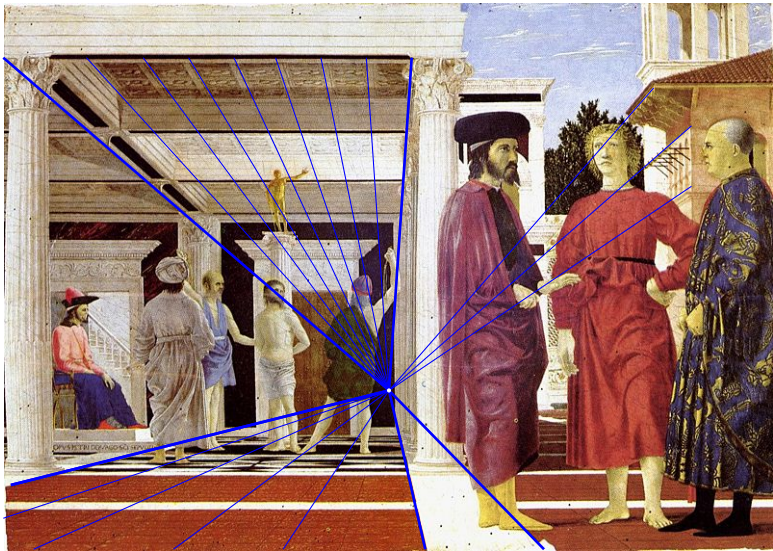
Piero della Francesca, *The Legend of the True Cross*



Piero della Francesca, *The Legend of the True Cross*



Piero della Francesca, *The Flagellation of Christ*, 1460



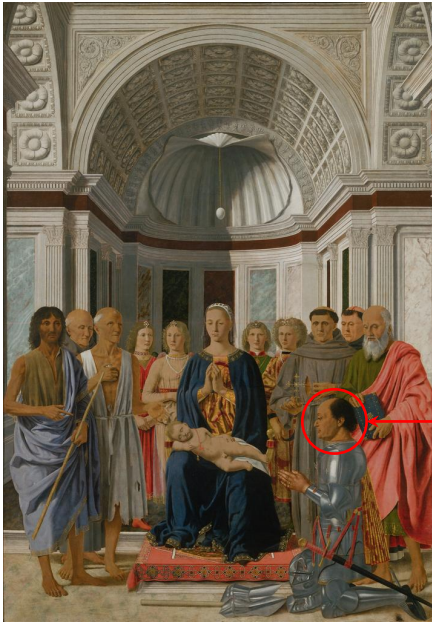
Piero della Francesca, *The Flagellation of Christ*, 1460



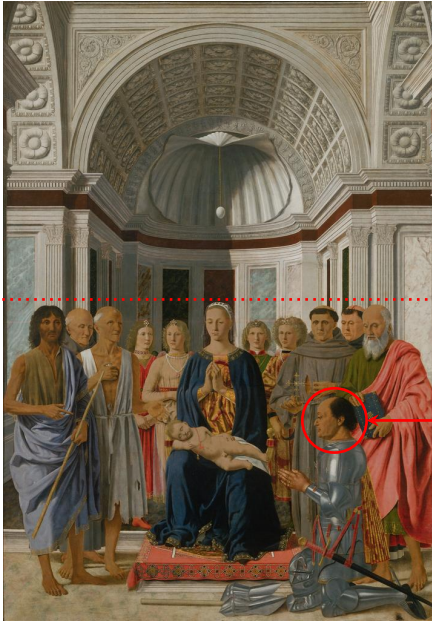
The Ideal City, 1470



Piero della Francesca, 1473
Virgin and Child with Saints, Angels, and Federigo da Montefeltro



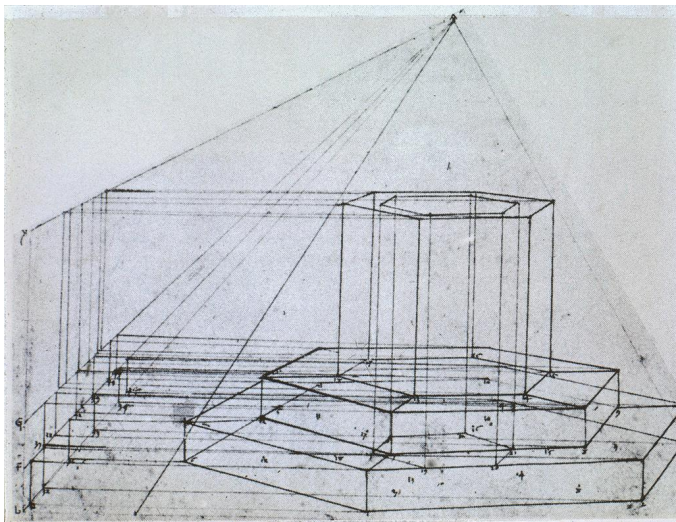
Piero della Francesca, 1473
Virgin and Child with Saints, Angels, and Federigo da Montefeltro



Piero della Francesca, 1473
Virgin and Child with Saints, Angels, and Federigo da Montefeltro

Books by Piero della Francesca

- ▶ *Abacus Treatise (Trattato d'abaco)*
A book on arithmetic and algebra
- ▶ *Short Book on the Five Regular Solids (Libellus de Quinque Corporibus Regularibus)*
A study of three-dimensional solids
- ▶ *On Perspective for Painting (De Prospectiva Pingendi)*
An extensive treatise on perspective

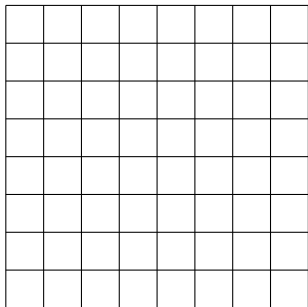


Next Time:
Piero della Francesca's mathematics
and perspective methods

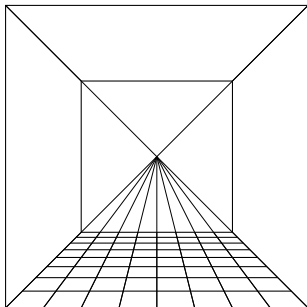
Assignment #4: Filling a Room

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Top view

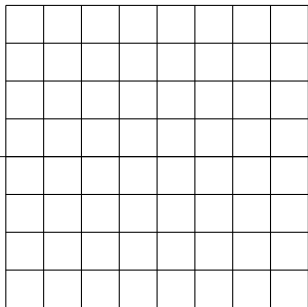


Perspective view

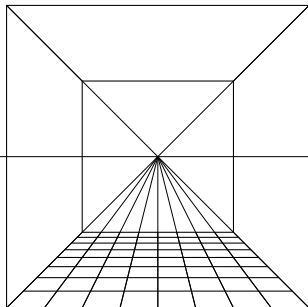


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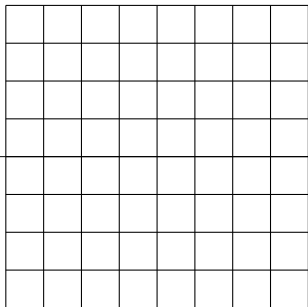
Perspective view



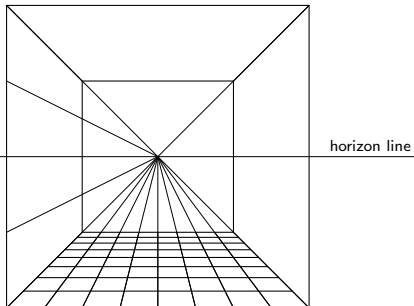
horizon line

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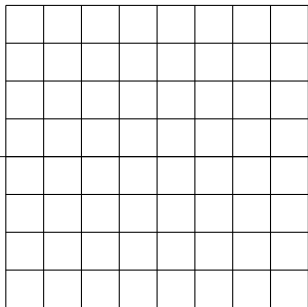


Perspective view

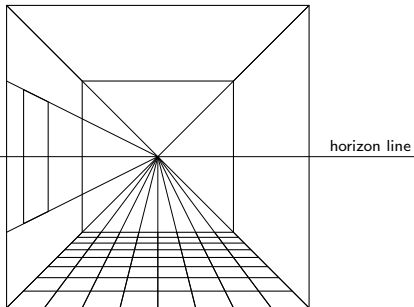


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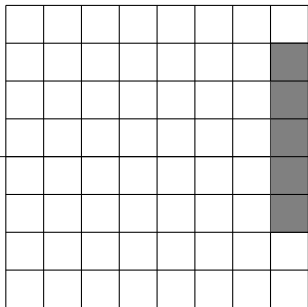


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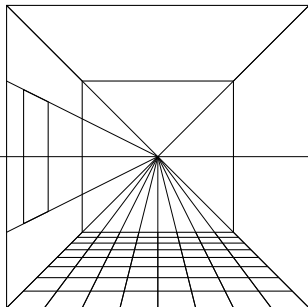


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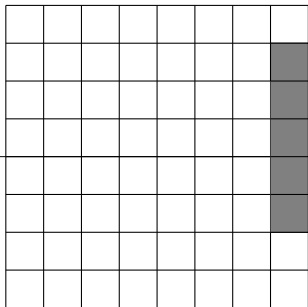
Perspective view



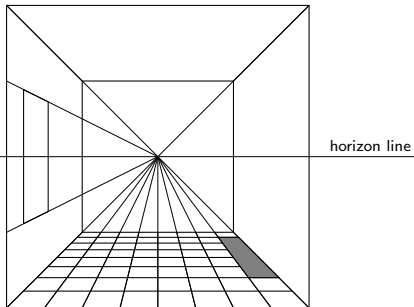
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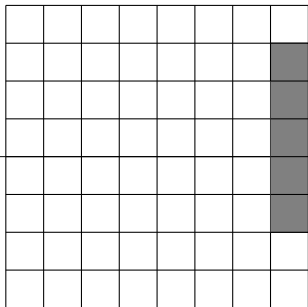


Perspective view

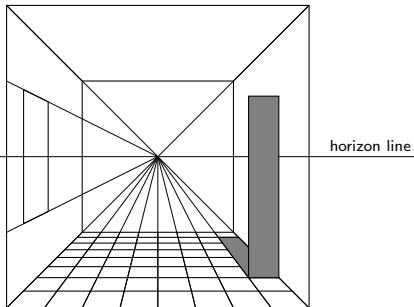


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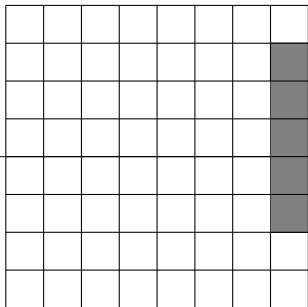


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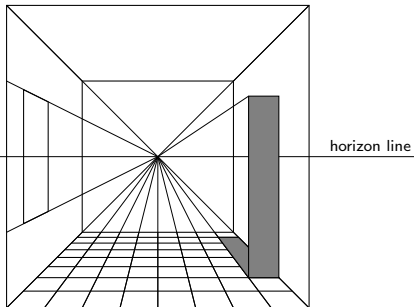


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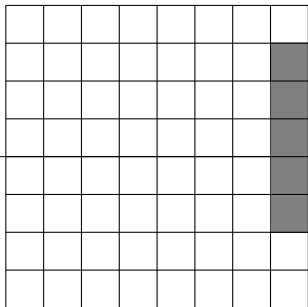


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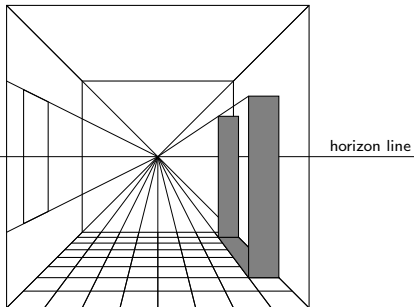


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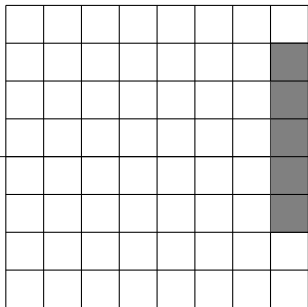


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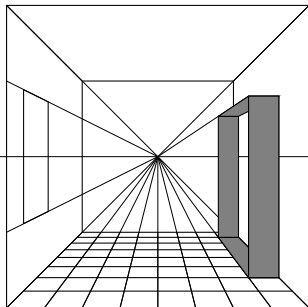


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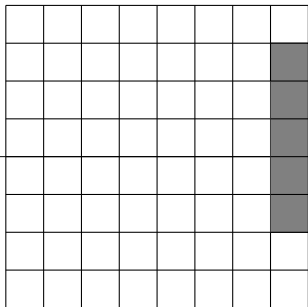
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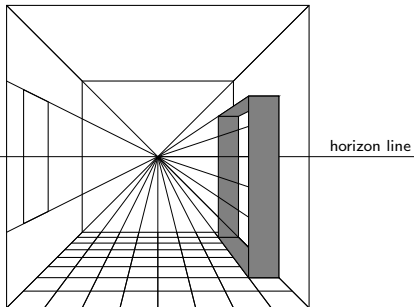
horizon line

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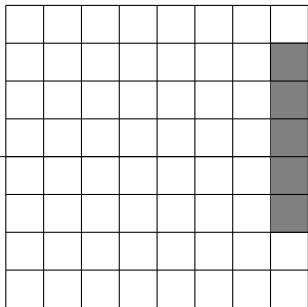


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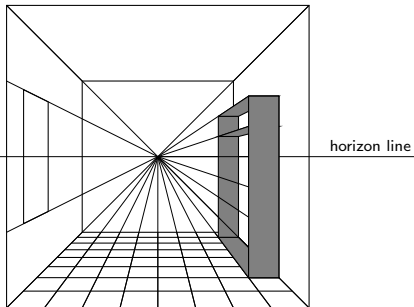


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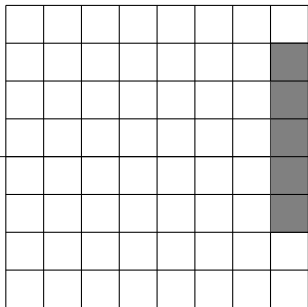


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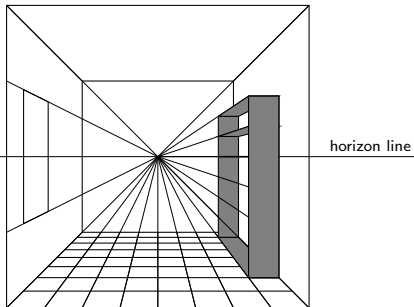


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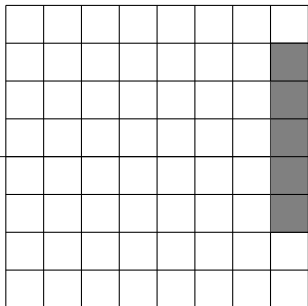


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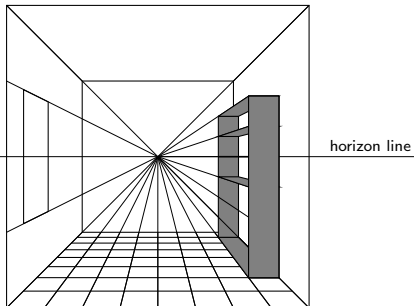


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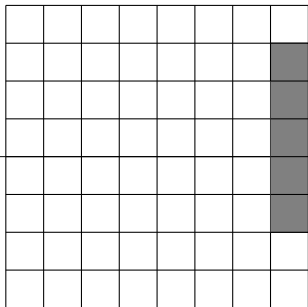


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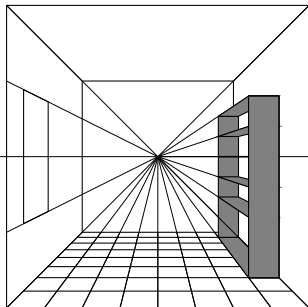


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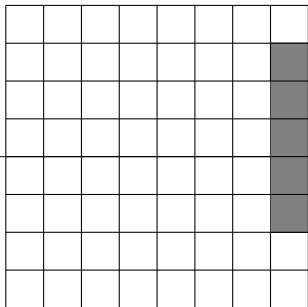
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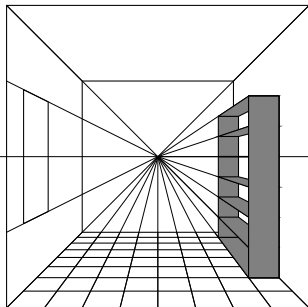
horizon line

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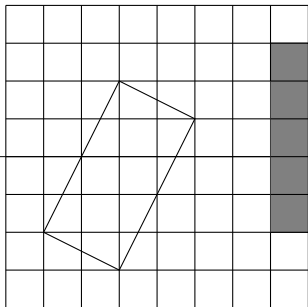
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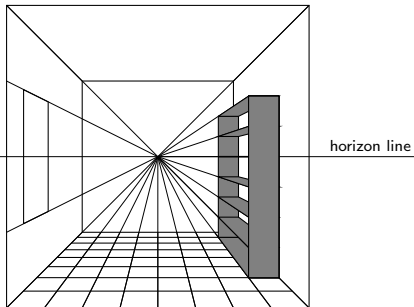
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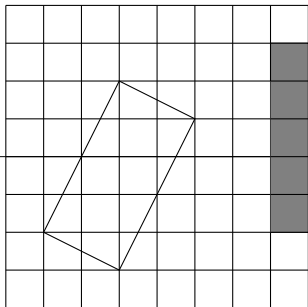


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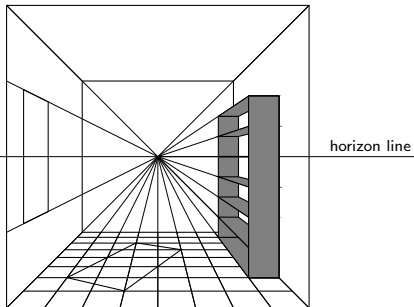


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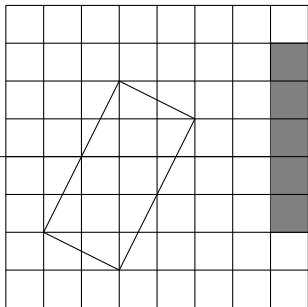


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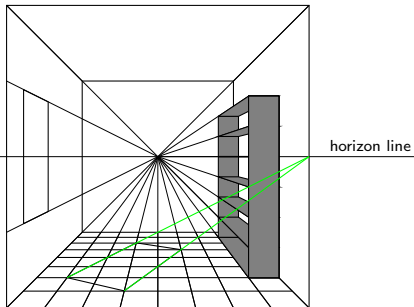


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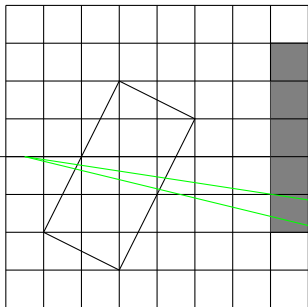


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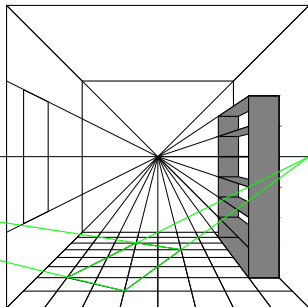


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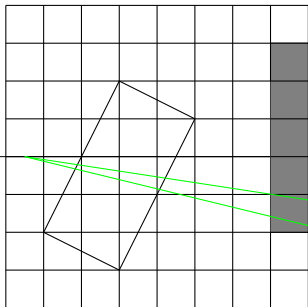
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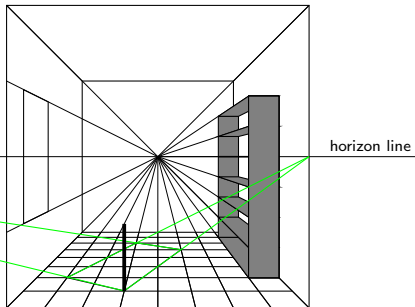
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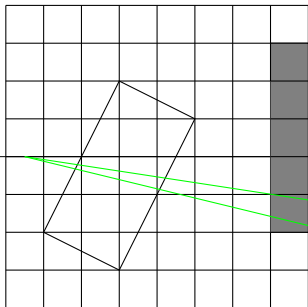


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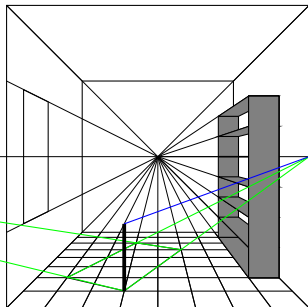


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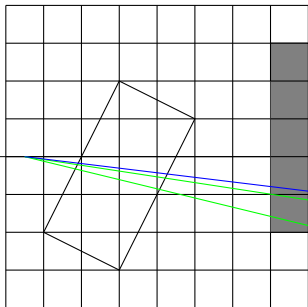


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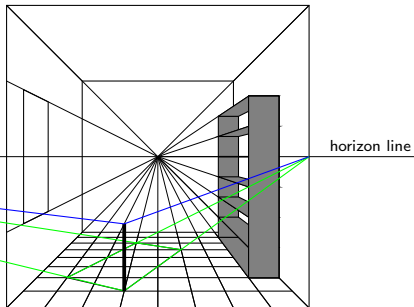


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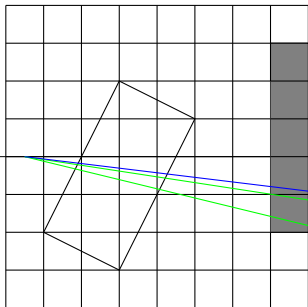


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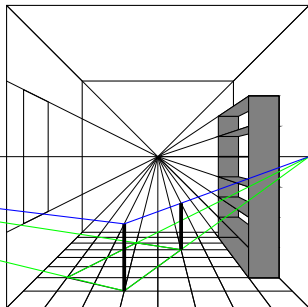


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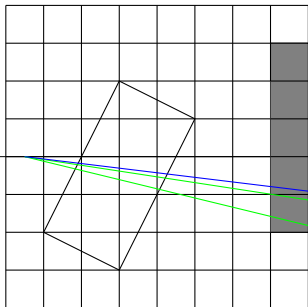
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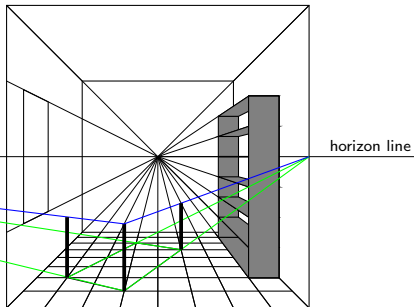
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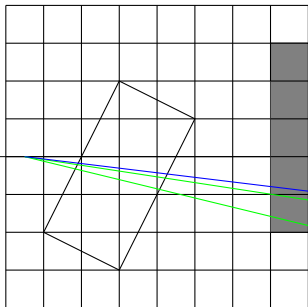


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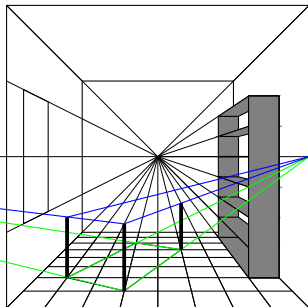


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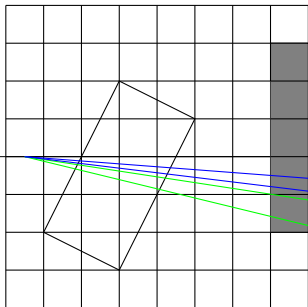
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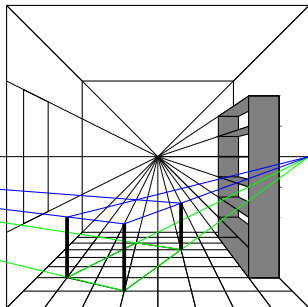
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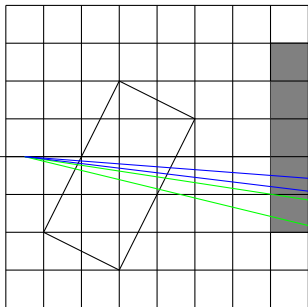


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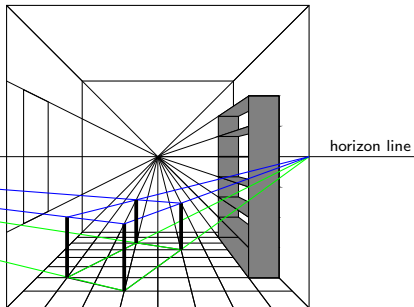


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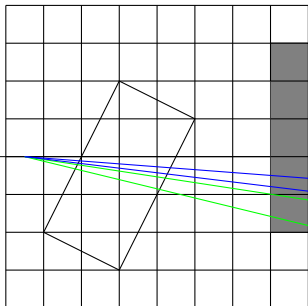


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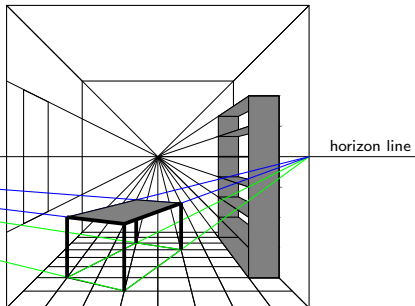


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