Unit 10: Similar Figures

Lesson 4: Scale Drawings

Notes 10.4

Name:_____

Hour:_____

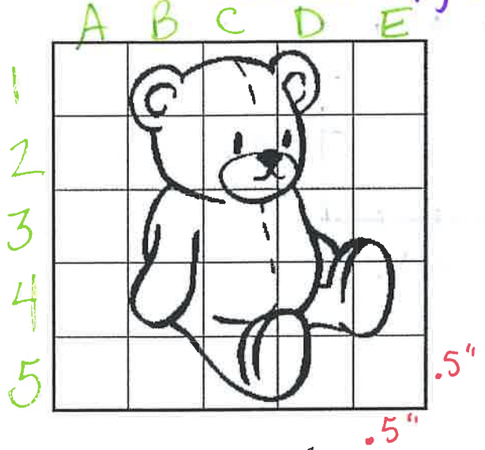
Learning Targets

☐ I can create a scale drawing at a different scale.

Scale Drawings

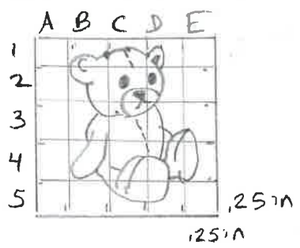
Reduction: An exact copy of something, but on a smaller scale. (ex * 1/3)

Enlargement: An exact copy of something, but on a larger scale (* 4)



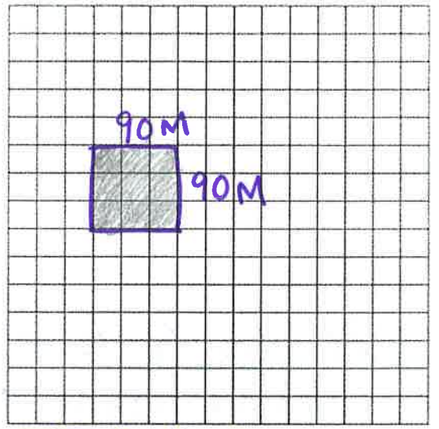
Scale Factor: $\frac{1}{2}$

Steps for Drawing
1. Measure the gird with the picture.
2. Use the scale factor to determine the size of the new grid.
3. Number the corresponding squares in both grids.
4. Draw the image from the box of the original drawing to the corresponding box of the new grid.



1. Andrew is an urban planner. He wants to create a scale drawing of a city block. The block is square with a side length of 90 m. Draw the city block such that 1 unit on the grid represents 30 m.

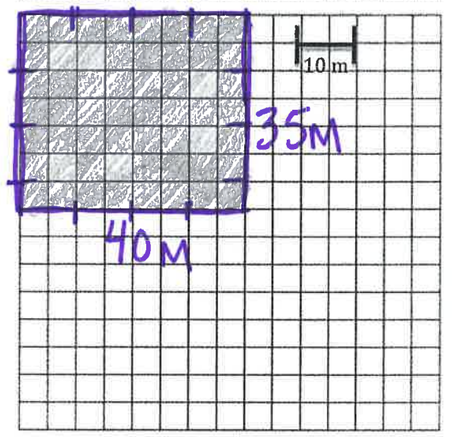
$\frac{1 \text{ unit}}{30 \text{ meters}} = \frac{X \text{ units}}{90 \text{ meters}}$ $X = 3$ units



2. Princess Sophia orders the construction of a water fountain to go in her royal garden. Her architect draws a floor plan as a rectangle measuring 35 m by 40 m. Draw the architect's plan on the gird below.

length $\frac{1 \text{unit}}{5 \text{ meters}} = \frac{X \text{ units}}{35 \text{ Meters}}$ $x = 7$ units long

Width $\frac{1 \text{ unit}}{5 \text{ meters}} = \frac{X \text{ units}}{40 \text{ meters}}$ $X = 8$ units wide



3. Casper is a scientist. Using a microscope, he looks at a salt crystal and discovers it is shaped like a cube. Each square face has a side of 0.1 mm. Draw the crystals square face such that 1 unit on the grid represents 0.01mm

$\frac{1 \text{ unit}}{.01 \text{ MM}} = \frac{X \text{ units}}{.1 \text{ MM}}$ $X = 10$ units