

Lesson 23 - Finding the Scale Factor/Ratio page 138

In order to construct you need????

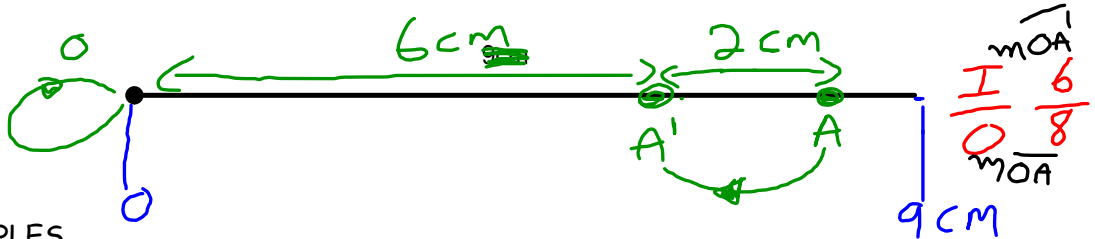
- on paper
- center
 - Ratio/scale
 - figure

- Physically
- P+E
 - Calc.
 - Ruler

If you don't have a ratio (scale factor) "SF". Find it!!!

How? Measure the distance between the center point and the image (mirror) point over the distance between the center and the initial (original) point.

Formula ~ $SF = \frac{\text{Image}_{\text{mirror}}}{\text{Original}_{\text{initial}}} = \frac{I}{O}$



EXAMPLES

Find the "SF" or ratio in the following transformations.

use ruler

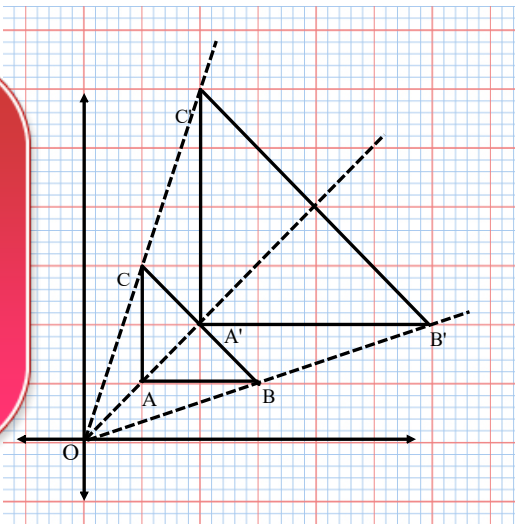
$$\frac{I}{O} = \frac{m\overline{OF'}}{m\overline{OF}} = \frac{6}{2} = 3$$

use numbers

$$\frac{I}{O} = \frac{m\overline{PB'}}{m\overline{PB}} = \frac{5}{10} = .5$$

Scale Factor

Teacher's Notes 1



Three horizontal rectangular boxes for notes, colored purple, blue, and green from top to bottom.

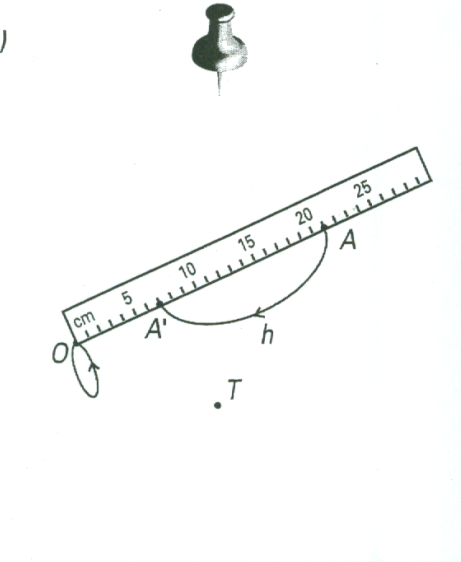
Teacher's Notes 2

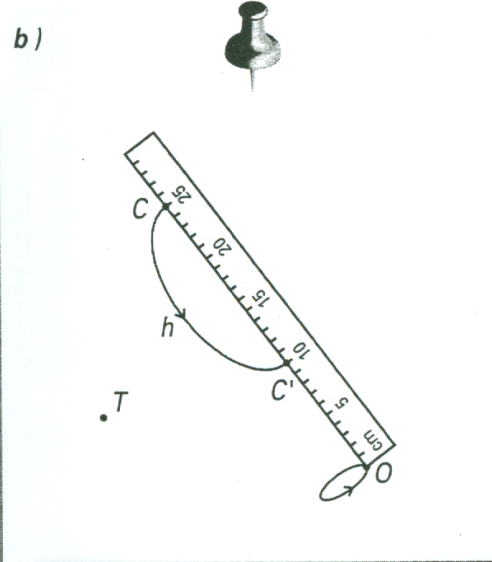
Examples

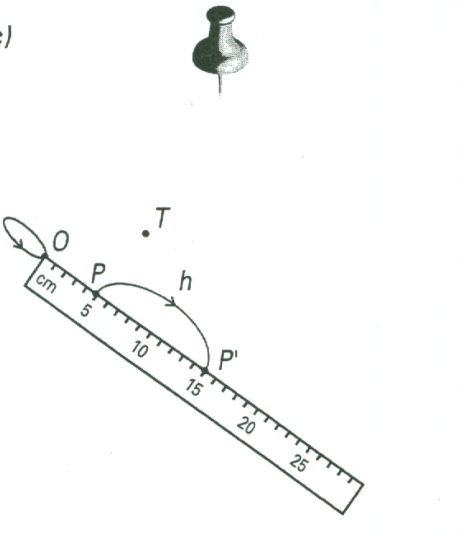
WORKSHEET

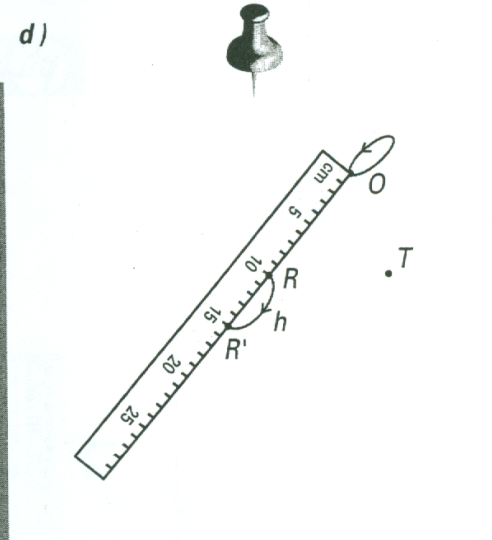
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3 To define a similarity transformation, the centre and ratio must be known. Find the ratio of each similarity transformation by comparing the distance between the centre and the initial point.

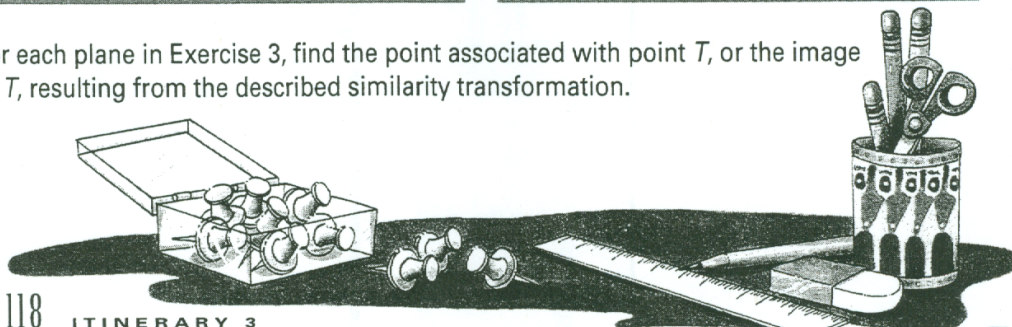
a) 

b) 

c) 

d) 

4 For each plane in Exercise 3, find the point associated with point T , or the image of T , resulting from the described similarity transformation.



Attachments

quiz lesson 23.notebook