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From page 491:

- (#47) To find  $x$ :

$$\begin{aligned}\frac{10}{4} &= \frac{x}{2.4} \\ 24 &= 4x \\ 6 &= x\end{aligned}$$

To find  $y$ :

$$\begin{aligned}\frac{10}{4} &= \frac{8}{y} \\ 10y &= 32 \\ y &= 3.2\end{aligned}$$

- (#49) To find  $x$ :

$$\begin{aligned}\frac{4}{\frac{10}{24}} &= \frac{x}{6} \\ 24 &= 10x \\ 2.4 &= x\end{aligned}$$

To find  $y$ :

$$\begin{aligned}\frac{4}{\frac{10}{24}} &= \frac{3}{y} \\ 4y &= 30 \\ y &= 7.5\end{aligned}$$

- (#52) To find  $x$ :

$$\begin{aligned}\frac{1}{\frac{1.75}{0.875}} &= \frac{x}{\frac{0.875}{1.75}} \\ 0.875 &= 1.75x \\ \frac{0.875}{1.75} &= x \\ \frac{1}{2} &= x\end{aligned}$$

To find  $y$ :

$$\begin{aligned}\frac{1}{\frac{1.75}{0.7}} &= \frac{y}{\frac{0.7}{1.75}} \\ 0.7 &= 1.75y \\ \frac{0.7}{1.75} &= y \\ \frac{2}{5} &= y\end{aligned}$$

- (#53)

$$\begin{aligned}\frac{6}{2} &= \frac{\overline{BC}}{2} \\ 6 &= \overline{BC}\end{aligned}$$

- (#54)

$$\begin{aligned}\frac{6}{2} &= \frac{10}{\overline{DC}} \\ 6\overline{DC} &= 20 \\ \overline{DC} &= \frac{20}{6} \\ \overline{DC} &= \frac{10}{3}\end{aligned}$$

- (#55)  $\overline{AD} = \overline{AC} - \overline{DC} = 10 - \frac{10}{3} = \frac{20}{3}$

- (#56)  $\overline{BE} = \overline{BC} - \overline{EC} = 6 - 2 = 4$

- (#73)

$$\begin{aligned}\frac{h}{105} &= \frac{6}{9} \\ 9h &= 630 \\ h &= \frac{630}{9} \\ h &= 70\end{aligned}$$

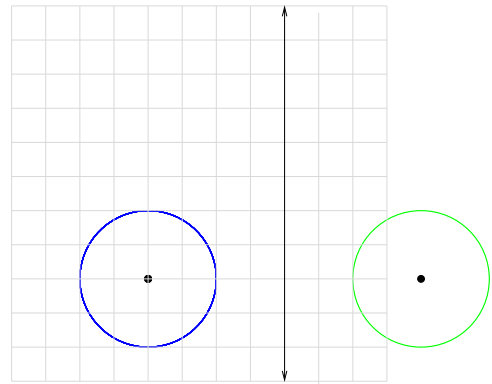
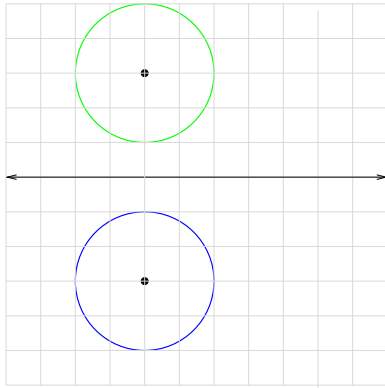
- (#80) a)  $m\angle BCA = m\angle DCE$  because they are opposite angles. Since the sum of the angles in a triangle is always  $180^\circ$ , the third pair of corresponding angles must also have the same measures.

b)

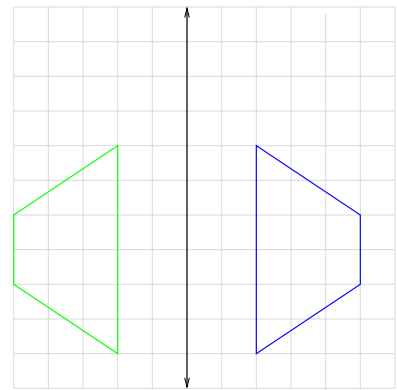
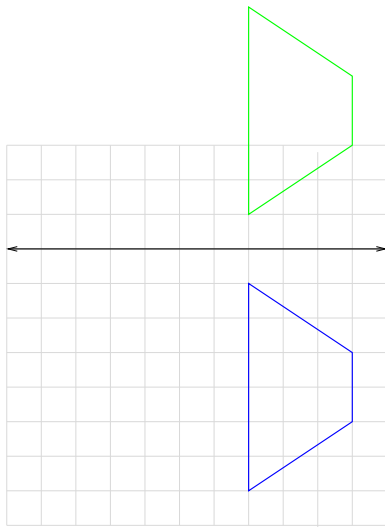
$$\begin{aligned}\frac{356}{1404} &= \frac{543}{d} \\ 356d &= 762372 \\ d &= \frac{762372}{356} \\ d &\approx 2141.5\end{aligned}$$

From page 533:

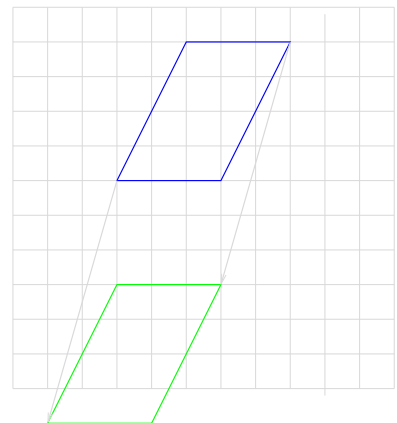
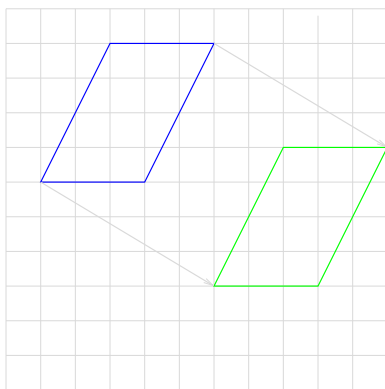
- (#19 and #20)



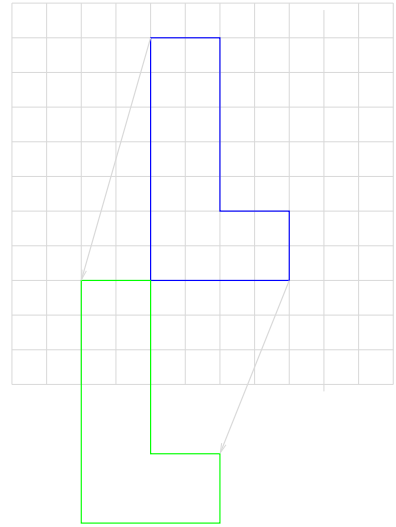
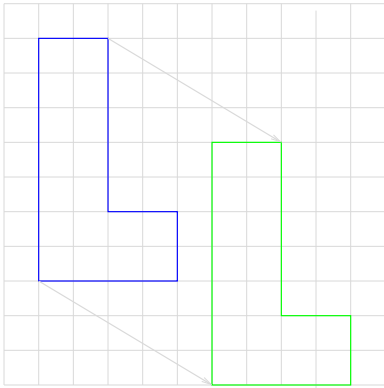
- (#21 and #22)



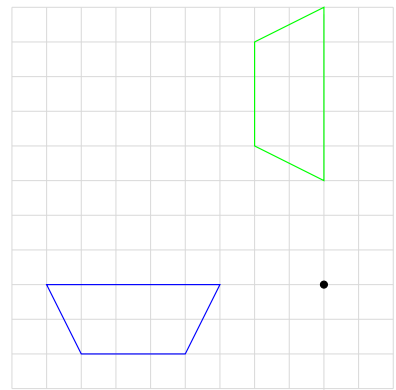
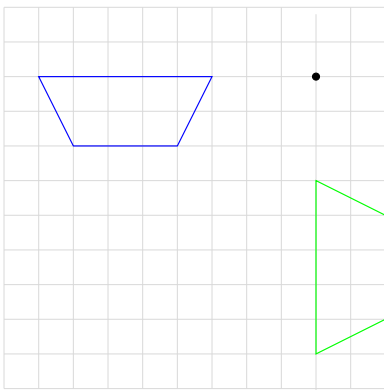
- (#23 and #24)



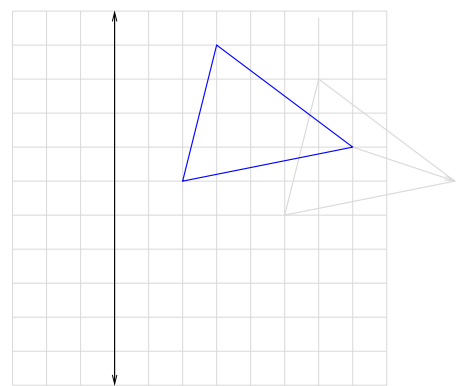
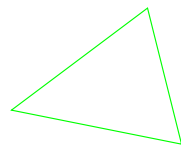
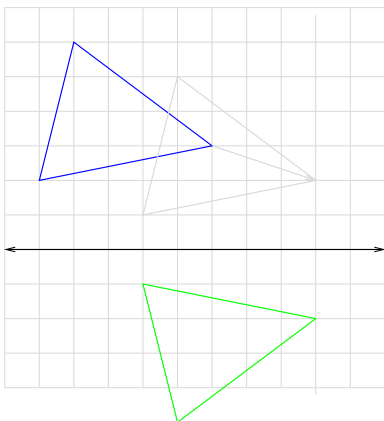
- (#27 and #28)



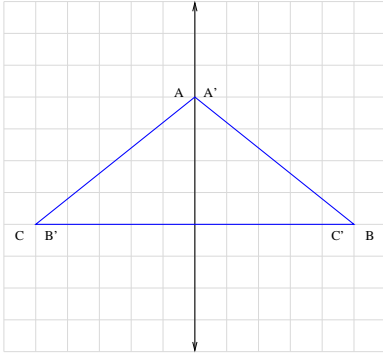
- (#37 and #38)



- (#39 and #40)

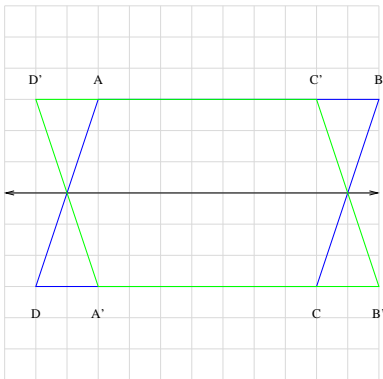


- (#47) a)



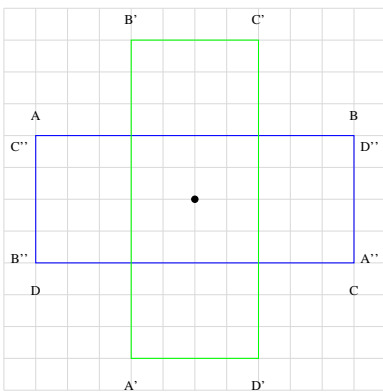
b) and c) Yes.

- (#49) a)



b) and c) No.

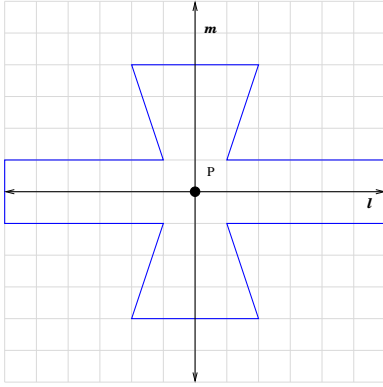
- (#51) a) and d)



b) and c) No.

e) and f) Yes.

- (#53) a), b) and c)



d) No.